



**mitsubishi  
ELECTRIC**

Mitsubishi Graphic Operation Terminal

# GOT-A900 SERIES

*Changes for the Better*

*What extends from here is  
the field called the future*



**GOT-F900**  
series





What extends from here is the field called the future.

From machine to factory - from factory to Global Web.  
 In the Information Technology (IT) age, the fields surrounding the Human Machine Interface (HMI) have unlimited possibilities. What is really demanded of the HMI at each site?  
 Increased efficiency of design time by "comfortable development environment", operation to maintenance of various devices by "Factory Automation integration", operation between fields beyond the space and time by "IT utilization",—  
 Mitsubishi's HMI, the GOT, that implements such future has gone through new evolution.  
 With the GOT900 series, we extend your fields to the future.

Graphic Operation Terminal  
**900**  
 series

- Contains advanced multimedia functions in a slim body.  
 Recommended for the operator **P.12**
- Troubleshooter for each site  
 Recommended for the maintenance personnel **P.13**
- Only one PC is required for screen design to debugging.  
 Recommended for the designer **P.14**



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Introduction

Product overview

Function description

Others



4



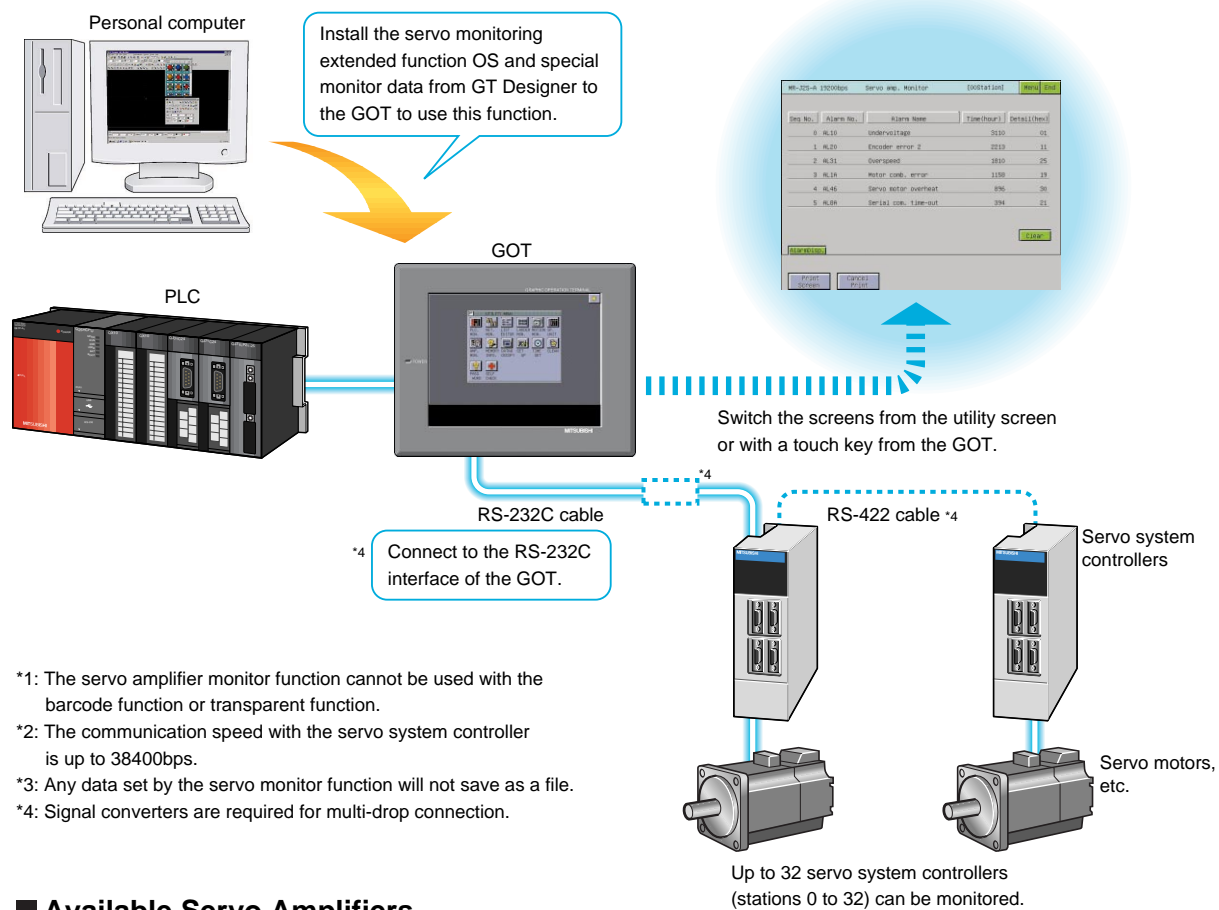
## Special report 1 Servo-related functions

Function  
1

NEW

### Servo amplifier monitor function

You can adjust servo amplifiers or read the servo amplifier error history using a GOT, without having the need for a separate peripheral device on-site.



- \*1: The servo amplifier monitor function cannot be used with the barcode function or transparent function.
- \*2: The communication speed with the servo system controller is up to 38400bps.
- \*3: Any data set by the servo monitor function will not save as a file.
- \*4: Signal converters are required for multi-drop connection.

#### Available Servo Amplifiers

- MELSERVO-J2-Super series (MR-J2S□A series, MR-J2S-□CP series)
- MELSERVO-J2M A series (MR-J2M-□DU (drive unit))
- MR-J2M-P8A (interface unit)

#### Available GOT

| A985GOT(-V) | A975GOT | A970GOT | A960GOT | A956WGOT | A95□GOT-M3 |
|-------------|---------|---------|---------|----------|------------|
| *1          | *1      | *1      | *1      | *1       | *2         |

- \*1 The extension memory board A9GT-FNB(1/2/4/8M) or A9GT-QFNB(4/8M) is required
- \*2 Only the A95□GOT-M3 (built-in memory extension type) is available.

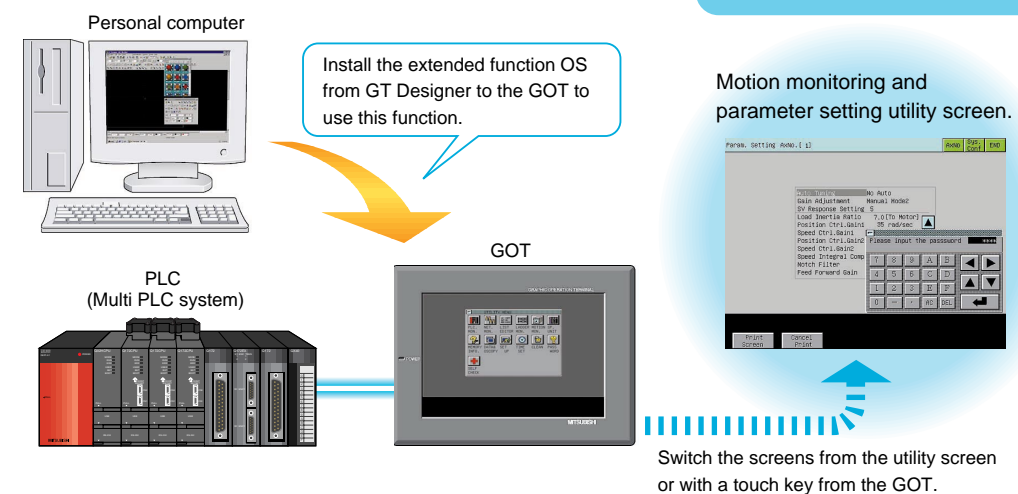
Function  
2

NEW

### Motion monitor function

Motion controller (Q series) monitoring and setting parameters can be done from the GOT.

Motion monitor function enables the connection with Q172CPU/Q173CPU on multi PLC system.



#### Function list

|                   | Function   |
|-------------------|--|
| Servo monitor     | Current value  |
|                   | SFC error history  |
|                   | Error list   |
|                   | Error list (Specified Axis)                              |
|                   | Positioning monitor                                      |
|                   | Servo monitor  |
| Parameter setting | Current value history *1                                 |
|                   | Servo monitor (Basic parameter, adjustment parameter) *2 |

- \*1: Current value history monitor is not compatible with A95\*GOT
- \*2: Use MR-J2S servo amplifier version B1 or later for parameter setting function.

- Use the following versions of the motion controller CPU (Q Series).
  - 1) Products with the main unit OS of Version 00E
  - 2) Products whose main units have the following serial numbers (indicated on the rating plate on the CPU module side)
    - Q172CPU : serial numbers Kxxxxx, Q173CPU : serial numbers Jxxxxx
- An extension memory board should be installed in GOT for A985GOT, A975GOT, A970GOT, A960GOT, A956WGOT.
- Type A95\*GOT-M3 (built-in memory extension type) is required for A95\*GOT.
- In a multi PLC system, PLC No.1 must be a Q Series PLC CPU. Also, install the Q172CPU/Q173CPU on the right side of the Q Series PLC CPU on the main base.
- Functions except above (i.e. Jog operation, Servo test etc.) are not available for motion monitor function.
- The following connection methods are available for Q172CPU/Q173CPU.
  - Note: The Q172CPU/Q173CPU can only be monitored on the same base, and not on other stations.

#### Connection type list

| Bus connection | CPU direct connection | Computer link connection | MELSECNET connection | CC-Link connection | Ethernet connection |
|----------------|-----------------------|--------------------------|----------------------|--------------------|---------------------|
| ○              | ○                     | ×                        | ×                    | ×                  | ×                   |

○ : Available × : Not available

Function  
3

### Special module monitor function

Monitoring/changing buffer memory data for QD75M can be done from the GOT.





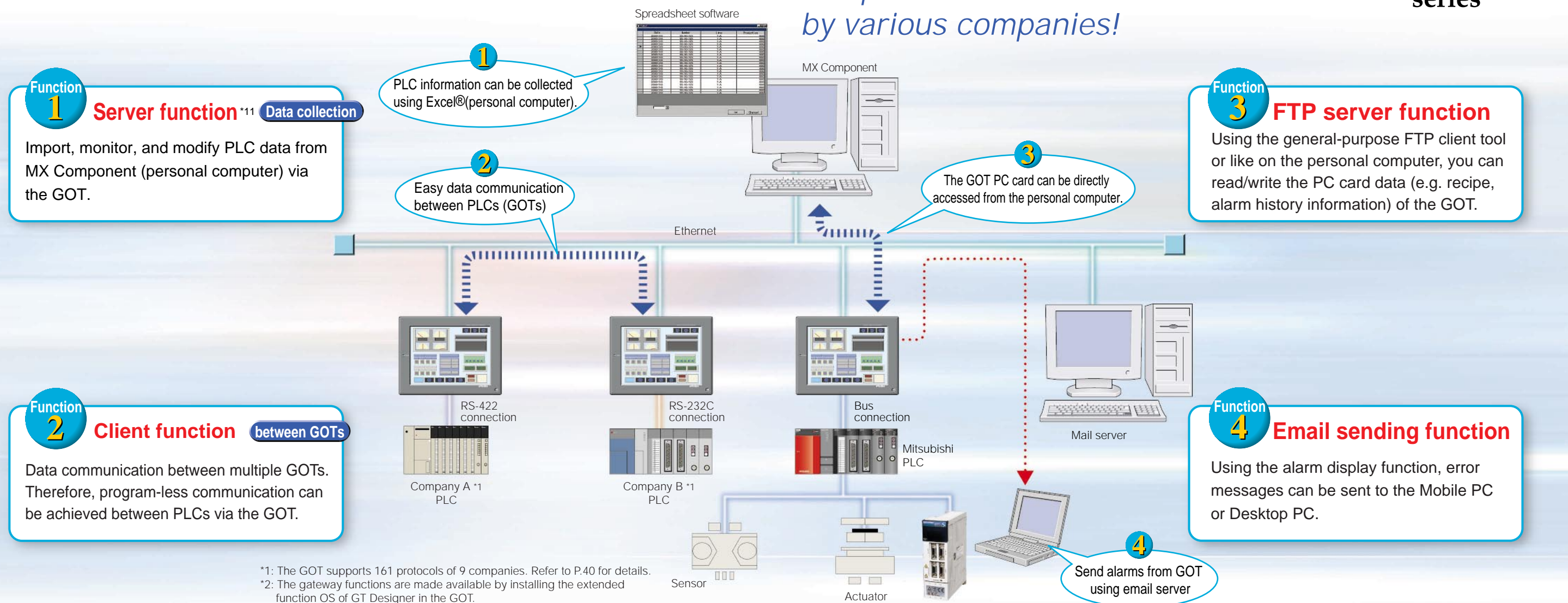
Special  
report 2

# Gateway functions NEW

Graphic Operation Terminal  
**900**  
series

Introduction

*GOT can handle all information communications between host computer and PLCs manufactured by various companies!*



## ■GOT-900 series and connection forms where you can use the gateway functions ○:Available ×:Unavailable

| Form of connection with controller  | A985GOT(-V) | A97□GOT | A960GOT | A956WGOT | A956GOT-M3 |
|-------------------------------------|-------------|---------|---------|----------|------------|
| Bus connection                      | ○           | ○       | ○       | ○        | ○          |
| CPU direct connection               | ○           | ○       | ○       | ○        | ×          |
| Computer link connection            | ○           | ○       | ○       | ○        | ×          |
| MELSECNET connection                | ×           | ×       | ×       | ×        | ×          |
| CC-Link connection                  | ×           | ×       | ×       | ×        | ×          |
| Ethernet connection                 | ×           | ×       | ×       | ×        | ×          |
| Other manufacturer's PLC connection | ○           | ○       | ○       | ○        | ×          |
| Microcomputer connection            | ○           | ○       | ○       | ○        | ×          |

<sup>\*3</sup>: For use with the A985GOT, A975GOT, A970GOT, A960GOT or A956WGOT, you need to fit an expansion memory board to the GOT.

<sup>\*4</sup>: For use with the A956GOT, you need to use the A956GOT-M3 (internal memory increase type).

<sup>\*5</sup>: The gateway functions are not available for GT SoftGOT, the A950/951/953GOT(-M3), A95□handy and F900 series.

## ■Equipment necessary for the gateway functions

| Necessary equipment            |                                     | A985GOT(-V)   | A97□GOT | A960GOT | A956WGOT    | A956GOT-M3          |
|--------------------------------|-------------------------------------|---|---------|---------|-------------|---------------------|
| Ethernet communication unit    |                                     | A9GT-J71E71-T   |         |         |             |                     |
| Communication board            | Bus connection (QCPU (Q mode))      | A9GT-QBUSS or A9GT-QBUS2S *6*7 (Used by fitting to Ethernet communication unit) |         |         |             |                     |
|                                | Bus connection (QnA/ACPU)           | A9GT-BUSS or A9GT-BUS2S *6*7 (Used by fitting to Ethernet communication unit)   |         |         |             |                     |
|                                | Connection by RS-232C communication | A9GT-RS2 or A9GT-RS2T   |         |         | A9GT-50WRS2 | Cannot be connected |
|                                | Connection by RS-422 communication  | A9GT-RS4  |         |         | A9GT-50WRS4 |                     |
| Memory board                   |                                     | A9GT-QFNB(4/8M) or A9GT-FNB(1/2/4/8M)   |         |         |             | Unnecessary         |
| When using FTP server function | SRAM type PC card                   | JEIDA Ver 4.2 compliant (PCMCIA 2.1 compliant) SRAM type PC card *8             |         |         |             |                     |
|                                | Flash PC card                       | A9GTMEM-10MF, A9GTMEM-20MF, A9GTMEM-40MF  |         |         | Unusable    |                     |
|                                | Compact flash PC card               | Compact Flash TM compliant compact flash PC card *9*10                          |         |         |             | Unusable            |

<sup>\*6</sup>: The bus connection unit (A9GT-(Q)BUS(2)SU) is unusable for the gateway functions. Use the above bus connection board (A9GT-(Q)BUS(2)S) when making bus connection.

<sup>\*7</sup>: The bus connection board dedicated to the A956WGOT is unusable for the gateway functions. Use the above bus connection board (A9GT-(Q)BUS(2)S) when making bus connection using the A956WGOT.

<sup>\*8</sup>: A PC card interface unit is required to use the SRAM type PC card with the A956WGOT or A956GOT. (Refer to P.30 "Options".)

<sup>\*9</sup>: For other than the A956WGOT, a conversion adaptor (compact⇔Type II conversion adaptor) is necessary.

<sup>\*10</sup>: Unusable with the A985GOT-TBA/TBD and A985GOT-TBA-EU.

<sup>\*11</sup>: When using the server function, use MX Component Version 3 or later (soon to be released).



Special  
report 3

# GT SoftGOT



Graphic Operation Terminal  
**900**  
series

Mitsubishi Electric has developed the "GT SoftGOT" HMI software for personal computers to perform centralized management of production data on-site and in a central monitor room.

"GT SoftGOT", which implements the GOT900 functions on a personal computer (screen data compatibility with the GOT), has realized another future form of production sites.



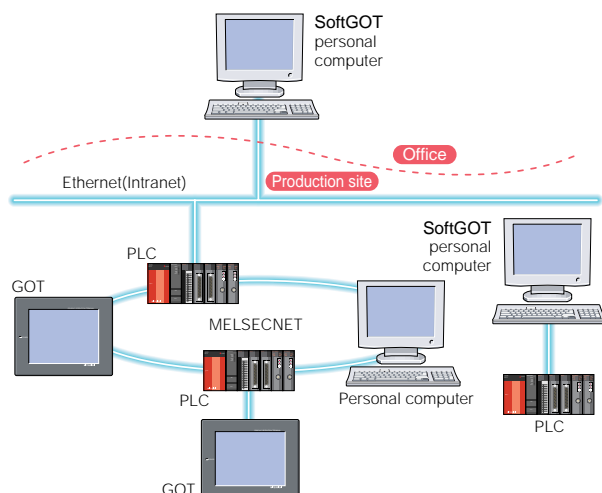
"How about using the personal computer as a GOT?"

Merit  
**1**

## Remote monitoring!

### Remote monitoring by intranet LAN

- Production site conditions can be monitored from the office.



### Effective utilization of the Internet by combination with general software

- Alarms and on-site status are collected at anytime from remote locations (mail function)  
Alarm occurrence/recovery, alarm history data, recipe data and screen image can be sent by email.
- Remote monitoring by the Internet (remote device monitoring function)  
The device status being monitored by GT SoftGOT can also be monitored on a Mobile PC or desktop PC.

<Example of remote monitoring via the Internet.>

By installing the remote control software<sup>\*7</sup> (commercially available) on the host side (production site) and remote side (office) respectively, host side GT SoftGOT can be monitored/operated if GT SoftGOT is not installed on the remote side.

<sup>\*7</sup>: The remote control software confirmed by Mitsubishi to operate properly is pcAnywhere 10.0.  
The firewall setting must be changed depending on the connection.

Merit  
**2**

## Reduced design time!

### Reduce design cost by utilizing screen data

Design costs can be reduced since the screen data of the production site can be shared on all layers from higher-level personal computers to lower-level GOTs.

### Monitoring screens can be created simpler and cheaper

A monitoring operation screen can be created more easily on the personal computer than the monitoring software such as SCADA or VisualBasic®.

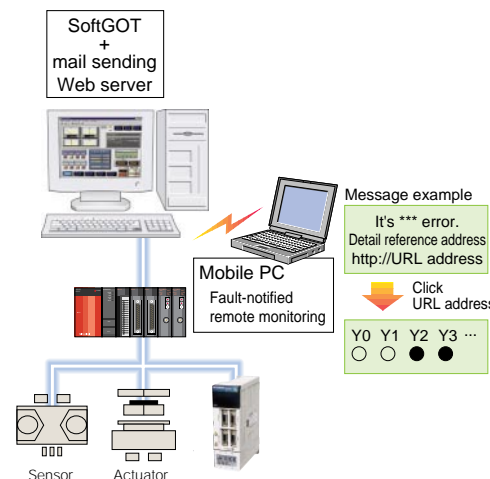
Merit  
**3**

## Personal computer functions results in user friendly applications!

### SXGA (1280(1024) and XGA (1024(768) resolutions are supported to increase the amount of information on each screen.

### Ease of numeric input and ASCII input

Numeric/ASCII input function entries can be made directly from the personal computer keyboard.



Webserver function working together with Mobile PC

## GT SoftGOT operating environment

| Item   | Description   |
|--|---|
| Main unit                                    | personal computer   |
| Disk drive                                   | Pentium® 200MHz or higher (Pentium® 300MHz or higher recommended)<br>Personal computer on which Microsoft® Windows®98, Windows® Millennium Edition <sup>*5</sup> , Windows® NT Workstation 4.0 <sup>*1</sup> or Windows® 2000 Professional runs |
| Memory                                       | 64M bytes or more (96M bytes or more recommended)   |
| Free hard disk area                          | 150M bytes or more  |
| Display                                      | 800 x 600 dots or more  |
| License key/<br>license key FD <sup>*3</sup> | A9GTSOFT-LKEY-P (license key for personal computer) <sup>*4</sup>   |

- <sup>\*1</sup>: Use the personal computer where Windows® NT Workstation 4.0 of Service Pack 3 or later is installed.
- <sup>\*2</sup>: Necessary only when the PC CPU unit is used (used for license registration/deregistration on license key FD).
- <sup>\*3</sup>: A9GTSOFT-LKEY-P is required to use a personal computer.
- <sup>\*4</sup>: To use A9GTSOFT-LKEY-P, the personal computer must have a parallel port (Centronics/prineter connector).
- <sup>\*5</sup>: The remote device monitoring function is not available with Windows® Millennium Edition.

### Devices that can be connected:

- Mitsubishi PLC ..... CPU direct connection, Ethernet connection, computer link connection, bus connection <sup>\*8</sup>
- <sup>\*8</sup>: Bus connection is enabled only when the PC CPU unit is connected.

### Notes

- The GT SoftGOT software and GT SoftGOT license (one license for each personal computer) are required to use the GT SoftGOT functions.  
(If GT SoftGOT is started without the license key being used, it operates for only about 10 minutes.)
- The GT SoftGOT software is included in GT Works-Plus or GT Works.
- GT Works-Plus includes a license key for personal computer.



Graphic Operation Terminal

9000 series

We recommend the GOT with confidence.

## Recommended for the operator.

Improve workability and reduce running costs.

Quick response

When you use the GOT

The GOT can be viewed and operated without stress.

If a machine's operation or monitor's response is bothering, the HMI cannot be used comfortably.

The industry's fastest

## QUICK RESPONSE

Quick response

When you use the GOT

Quick response is made due to bus connection or direct CPU connection. The responses of the monitor display and operation are also quick.

•Applicable GOT ... All series \*1

|               |                |                          |               |
|---------------|----------------|--------------------------|---------------|
| Connected to: | Mitsubishi PLC | Other manufacturer's PLC | Microcomputer |
|               | Usable         | Usable                   | Unusable      |

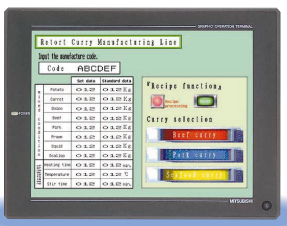
\*1: The GOT-F900 series supports direct CPU connection only.

Recipe

When you use the GOT

Initial values for material blending, processing dimensions and positioning can be easily set.

A controller (PLC or microcomputer) program (transfer instruction) is normally used to set initial values for material blending, processing dimensions, positioning, etc.



Recipe

When you use the GOT

The settings (initial values) of different patterns can be saved in the GOT internal memory, and only necessary data can be transferred to the controller as appropriate by the specified condition (trigger), reducing the controller loads (programs and devices). Controller data can be read and saved, so the process control and production control information saved on a PC card can be read and used on a personal computer (e.g. Excel).

•Applicable GOT ... All series \*2\*3

|               |                |                          |               |
|---------------|----------------|--------------------------|---------------|
| Connected to: | Mitsubishi PLC | Other manufacturer's PLC | Microcomputer |
|               | Usable         | Usable                   | Usable        |

\*2: The functions of the GOT-A900 are different from those of the F900 series. Refer to this catalog and the GOT-F900 series catalog for details.  
\*3: An expansion memory board is necessary.

Human sensor

When you use the GOT

It also saves energy.

The energy saving law was revised in April, 1999, and more efforts must be made to save energy.

An industry first

■ Energy saving effect  
Energy is saved by 20% in error detection display.  
(Actual work time 0.5 hours/day)  
Energy is saved by 8% in an assembly instruction process  
(Actual work time 5 hours/day)

•Applicable GOT ... A985GOT(-V)


|               |                |                          |               |
|---------------|----------------|--------------------------|---------------|
| Connected to: | Mitsubishi PLC | Other manufacturer's PLC | Microcomputer |
|               | Usable         | Usable                   | Usable        |

Audio output

When you use the GOT

Audio alerts of machine operating status is realized.

Immediate notification of emergent errors, such as Line stop or machine failure is a pre-requisite.



•Applicable GOT ... A985(-V)/A975/A970/A960GOT \*3

|               |                |                          |               |
|---------------|----------------|--------------------------|---------------|
| Connected to: | Mitsubishi PLC | Other manufacturer's PLC | Microcomputer |
|               | Usable         | Usable                   | Usable        |

\*3: An expansion memory board is necessary.

Graphic Operation Terminal

9000 series

We recommend the GOT with confidence.

## Recommended for the maintenance personnel.

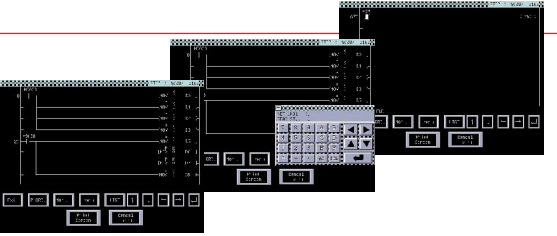
Improve maintainability and reduce running costs.

Ladder monitor  
Faultfinding  
List program edit

When you use the GOT

Improve maintainability.

The maintenance personnel should solve problems as fast as possible when a machine malfunctions or fails.



Ladder monitor  
Faultfinding  
List program edit

When you use the GOT

•Ladder monitor \*3 \*4  
You can monitor circuits in a ladder diagram format.

•Cross reference function \*3 \*5  
Failure diagnosis can be done easily by using this function.

•List program edit \*3 \*6 \*7  
Read/write of list programs (instruction word) format can be done, so they can be edited easily on the site.

Refer to "Ladder Monitor" and "List Edition" on pages 34 and 35.  
\*Ladder monitor can also be done using GX Developer via the GOT.  
(Transparent function)

\*3: An expansion memory board is necessary.  
\*4: Applicable GOT ... A985(-V)/A975/A970/A960/A956WGOT  
Connected to ... Mitsubishi PLC (The A956WGOT is supported by the MELSEC-Q series (Q mode) only)  
\*5: Applicable GOT ... A985(-V)/A975/A970/A960/A956WGOT  
Connected to ... Only the MELSEC-A series is supported (The MELSEC-Q series (Q mode) will soon be supported.)  
\*6: Applicable GOT ... GOT-A900 series (only M3 type for the A95□GOT)  
Connected to ... Only the MELSEC-A series is supported.  
\*7: Applicable GOT ... F940(W)/F940 handy/ET940GOT  
Connected to ... Only the MELSEC-FX series is supported.

•Applicable GOT ... All series \*4\*5\*6\*7

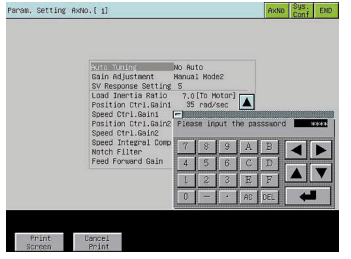
|               |                 |                          |               |
|---------------|-----------------|--------------------------|---------------|
| Connected to: | Mitsubishi PLC  | Other manufacturer's PLC | Microcomputer |
|               | Usable *4*5*6*7 | Unusable                 | Unusable      |

Motion monitor

When you use the GOT

Startup and maintenance of motion controller can be performed easily.

Previously to monitor/modify motion controller parameter values needed a separate PC on-site.



Motion monitor

When you use the GOT

•Motion controller \*3 \*8  
Motion controller (Q series) monitoring and setting parameters can be done easily on the GOT.

\*3: An expansion memory board is necessary.  
\*8: Applicable GOT ... GOT-A900 series (only M3 type for the A95□GOT)  
Connected to ... Only the motion controller (Q series) is supported.

System monitor  
Special unit monitor  
Network monitor

When you use the GOT

Improve machine startup and debugging efficiency.

The machine and line startup operation can be streamlined.

System monitor  
Special unit monitor  
Network monitor

When you use the GOT

•System monitor \*9  
The GOT alone can monitor device values and change current values and timer/counter settings.

•Special unit monitor \*3 \*11  
The special unit operation (buffer memory monitor/change) can be checked easily.

•Network monitor \*3 \*10  
The GOT alone can check the network communication status.

Refer to "System Monitor", "Special Unit Monitor" and "Network Monitor" on pages 34 and 35.

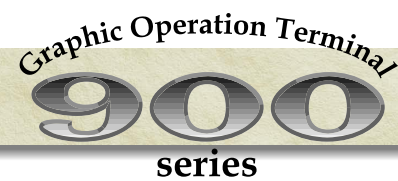
\*3: An expansion memory board is necessary.  
\*9: Applicable GOT ... All series  
\*10: Applicable GOT ... GOT-A900 series (only M3 type for the A95□GOT)  
\*11: Applicable GOT ... A985(-V)/A975/A970/A960GOT

•Applicable GOT ... All series \*9\*10\*11

|               |                |                          |               |
|---------------|----------------|--------------------------|---------------|
| Connected to: | Mitsubishi PLC | Other manufacturer's PLC | Microcomputer |
|               | Usable         | Unusable                 | Unusable      |

The GOT has many other specifications and functions.





We recommend the GOT with confidence.

# Recommended for the designer.

Design time and initial costs can be reduced.

## Main unit functions

Connection configuration that meets your needs

### The GOT can be connected to any device.

When a machine is designed, a controller is selected first. If an HMI can only be connected to a limited number of devices, it cannot be used even if it is a good one.

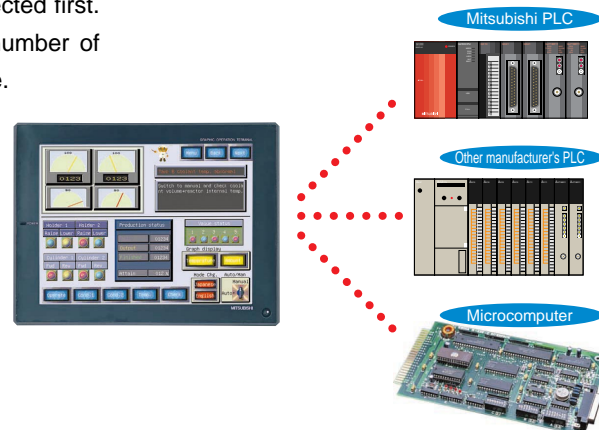
#### When you use the GOT

The GOT can be connected to the MELSEC or any of the PLCs and microcomputer boards made by other manufacturers.

•Applicable GOT ... All series

|               |                |                          |               |
|---------------|----------------|--------------------------|---------------|
| Connected to: | Mitsubishi PLC | Other manufacturer's PLC | Microcomputer |
|               | Usable         | Usable                   | Usable        |

Refer to "Various Connection Configurations" on page 32.



OS installation

### The function and performance can be upgraded without changing hardware.

If the HMI must be replaced whenever new functions are added, costs increase.

#### When you use the GOT

The function or performance can be upgraded simply by installing the OS with new drawing software without changing the HMI that you purchased.

•Applicable GOT ... GOT-A900 series

|               |                |                          |               |
|---------------|----------------|--------------------------|---------------|
| Connected to: | Mitsubishi PLC | Other manufacturer's PLC | Microcomputer |
|               | Usable         | Usable                   | Usable        |

Refer to "OS Installation" on page 32.



Scripting function

### Load on the controller can be reduced.

If complicated data is displayed, the HMI control software affects machine control.

#### When you use the GOT

A variety of screen controls can be used on the GOT. By executing display related controls on the GOT, the load on the controller can be reduced. Also, system maintenance is easier by using these advantages with the scripting function.

•Applicable GOT ... GOT-A900 series

|               |                |                          |               |
|---------------|----------------|--------------------------|---------------|
| Connected to: | Mitsubishi PLC | Other manufacturer's PLC | Microcomputer |
|               | Usable         | Usable                   | Usable        |

Refer to "Script" on page 33.



## Development environment

Parts library function

### The HMI drawing can be facilitated.

The operability of drawing software is an important point when choosing a HMI.

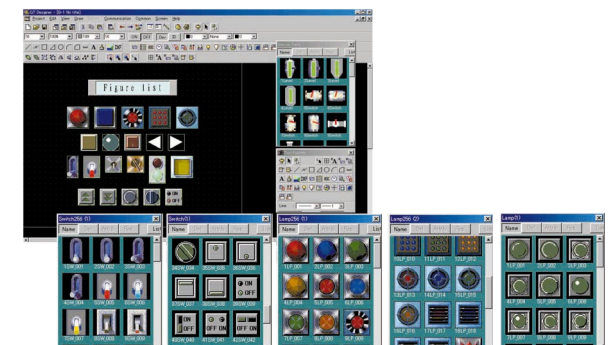
#### When you use the GOT

Drawing can be made just by arranging desired objects (operation functions) from a supplied template.

•Applicable GOT ... All series

|               |                |                          |               |
|---------------|----------------|--------------------------|---------------|
| Connected to: | Mitsubishi PLC | Other manufacturer's PLC | Microcomputer |
|               | Usable         | Usable                   | Usable        |

Refer to "GT Designer" on pages 28.



Simulation debugging

### Debugging can be performed easily without connecting a PLC.

It is inconvenient to connect the HMI with a PLC whenever the HMI is debugged.

#### When you use the GOT

A single personal computer can make drawings and perform debugging with GT Works.

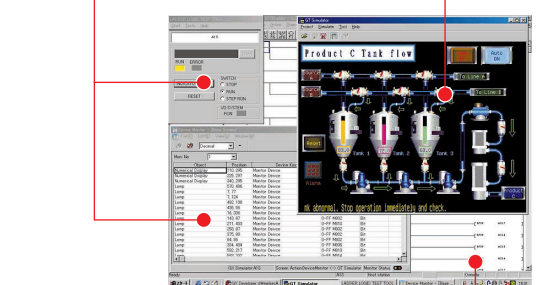
•Applicable GOT ... GOT-A900 series

|               |                |                          |               |
|---------------|----------------|--------------------------|---------------|
| Connected to: | Mitsubishi PLC | Other manufacturer's PLC | Microcomputer |
|               | Usable         | Unusable                 | Unusable      |

Refer to "GOT Simulation" on pages 29 and 35.

GX Simulator

GT Simulator



\*2: GX Simulator is needed to use the simulation debugging function.

GX Developer

Data conversion

### Existing data can be fully utilized.

By enabling existing drawing data to be used, the design time required for drawing can be reduced and work can be streamlined.

#### When you use the GOT

The data given on the right can be used for the GOT-900 series.

•Applicable GOT ... All series \*3

|               |                |                          |               |
|---------------|----------------|--------------------------|---------------|
| Connected to: | Mitsubishi PLC | Other manufacturer's PLC | Microcomputer |
|               | Usable         | Usable                   | Usable        |

Refer to the "Converter", "Bitmap Data Read" and "CAD Data Read" on page 35.

- GOT-800 series  
(The GOT data of the GOT-800 or earlier can also be used.)
- DU series  
(The FX-PCS-DU/WIN drawing software is required.)
- GP series
- DXF format CAD data \*4
- BMP format bitmap data

\*3: The GOT-F900 series can use only DU data (it can convert only a part of it).  
\*4: AutoCAD LT98 (Release 14)

The GOT has many other specifications and functions.



# Graphic Operation Terminal

## 900 series

### A985GOT-V

## Large size (12") A985GOT-V

Leave screen integration to this GOT!  
Animation capture in 65,000 colors



|                                      |   |                                     |                                   |                                      |  |
|--------------------------------------|---|-------------------------------------|-----------------------------------|--------------------------------------|--|
| Display device<br><b>TFT display</b> | Intensity<br><b>350cd/m<sup>2</sup></b> | Display colors<br><b>256 colors</b> | Resolution<br><b>800x600 dots</b> | Printer interface<br><b>Built-in</b> | Barcode reader interface<br><b>Built-in(RS-232C)</b> |
|--------------------------------------|---|-------------------------------------|-----------------------------------|--------------------------------------|--|

#### ■ Communication unit

- Bus connection board
- Serial communication board for CPU direct connection/microcomputer/computer link connection
- CC-Link connection unit
- Ethernet communication unit **(NEW)**
- Bus connection unit
- MELSECNET/10 network unit
- MELSECNET(II)/B data link unit

#### ■ Optional unit

- Backlight
- Expansion memory board
- Protection sheet
- Video input interface unit
- Stand
- Flash PC card
- External speaker
- RGB input interface unit
- Video/RGB mixed input interface unit **(NEW)**

■ Main functions (Refer to the GOT Dictionary (from page 32 on) and Function List (page 54) for details.)

#### ● Features / hardware

- OS installation
- Various connection configurations
- 256 colors display
- Audio output
- Human sensor
- Analog RGB output
- Analog RGB input
- Video input
- Transparent
- Backlight replacement

#### ● Maintenance functions

- System monitor
- Ladder monitor
- Special unit monitor
- Motion monitor
- Network monitor

#### ● Main unit functions

- Recipe
- Script
- Security
- Time action
- Alarm history
- Alarm flow display
- Alarm list
- Status monitor
- List edition
- Screen call

#### ● Drawing software (including GT Simulator)

- GOT simulation
- Converter
- Bitmap data read
- CAD data read
- Refer to GX Developer comment data

### Video input

#### As-is full mode display

**Up to 4 video windows can be displayed at the same time.**

- Up to 4 video cameras can be connected and shot images can be displayed simultaneously.
- Viewing images simultaneously, you can grasp the conditions of the whole system in a short time.

**720 x 480 dot wide images can be displayed.**

- The video window display size can be varied in three steps as required.
- 720 x 480 or 640 x 480 dot wide images can be displayed at 100%, 50% or 25% size.

\*720 x 480 dots and 640 x 480 dots cannot be used at the same time. Four channels are set in the same manner.

The display size can be changed one step at a time every time the screen is touched.

### Video image can be paused in freeze mode.

**Video image can be paused to display a still image.**

- This function is useful when checking the situation at the instant when a problem occurs.

\*When several video windows are displayed, the images on all the windows stop.

### Partial display in clip mode

**You can display a selected part of an image you want to see.**

- By displaying a portion of the image, this function is useful when the display area is small.

Only one video window can be displayed in the clip mode.

### Hidden object can be displayed in transparent mode.

**You can specify a transparent color to display the object or figure under a video window.**

- You can use the touch switch or numeric/ASCII input function under the video window.

Touch switch under video window can be displayed and operated!

### Images are saved in JPEG format.

**Images can be saved on a PC card in the JPEG format.**

- This function, for example, is useful for checking the immediate condition of production equipment when it fails.
- Since the memory size necessary for saving a file on a PC card in this format is smaller than the BMP format, more images can be saved on the PC card.

\*Example (640 x 480 dot image)  
JPEG format: Approx. 90K bytes  
BMP format: Approx. 900K bytes  
(The compression ratio depends on the image.)

### RGB input \*2

#### The personal computer screen can be displayed as-is.

- The SVGA (800 ( 600 dots) or VGA (640 ( 480 dots) personal computer screen can be displayed unchanged on the GOT.
- The monitor screen is normally displayed, and it can be switched to the personal computer screen only when necessary.

\*When the personal computer CRT and the GOT are placed side by side, the GOT screen can act as a CRT, reducing CRT costs and saving space.

The screen is switched by turning the RGB display control bit ON/OFF.  
OFF: The monitor screen is displayed.  
ON: The personal computer screen is displayed.

The screen size can also be changed by touching the screen.

The personal computer screen and GOT monitor screen cannot be displayed simultaneously.

| Model name                               | Power supply voltage | AC100~240V<br>DC24V | A985GOT-TBA-V<br>A985GOT-TBD-V                                      | A985GOT-TBA-V-EU<br>— |
|--|----------------------|---------------------|---|-----------------------|
| Display device                           |                      |                     | TFT color display   |                       |
| Display colors                           |                      |                     | 256 colors (screen display: 65,536 colors)                          |                       |
| Intensity (cd/m <sup>2</sup> )           |                      |                     | 350 (8-step intensity adjustment)                                   |                       |
| Display angle (contrast ratio)           |                      |                     | Right and left: 60 degrees; up: 40 degrees, down: 50 degrees        |                       |
| Resolution (dot)                         |                      |                     | 800 x 600   |                       |
| Number of touch switches that can be set |                      |                     | 1900 (38 lines x 50 columns)  |                       |
| User memory capacity                     |                      |                     | 1MB (Up to 9MB)   |                       |
| External dimensions (mm)                 |                      |                     | 312W x 238H x 49D   |                       |
| Panel width (mm)                         |                      |                     | 43  |                       |
| Panel cut dimensions (mm)                |                      |                     | 302 <sup>+1</sup> <sub>0</sub> W x 228 <sup>+1</sup> <sub>0</sub> H |                       |
| Regulation compliance                    |                      |                     | UL/cUL  | UL/cUL, CE            |

- #### Notes on the Video/RGB input function
- Install the video input interface unit (A9GT-80V4) in the A985GOT-V to use the video input function.
  - Install the RGB input interface unit (A9GT-80R1) in the A985GOT-V to use the RGB input function.
  - The A985GOT-V does not have the CRT interface.
  - The external input/output unit (A9GT-70KBF) cannot be used with the A985GOT-V.



# Graphic Operation Terminal

## 900 series

### A985GOT

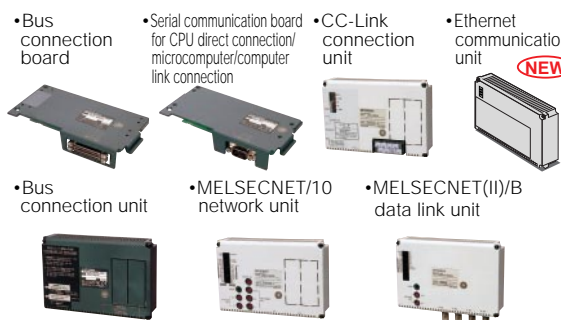
## Large size (12") A985GOT

12" compact size! Best-selling energy saving HMI

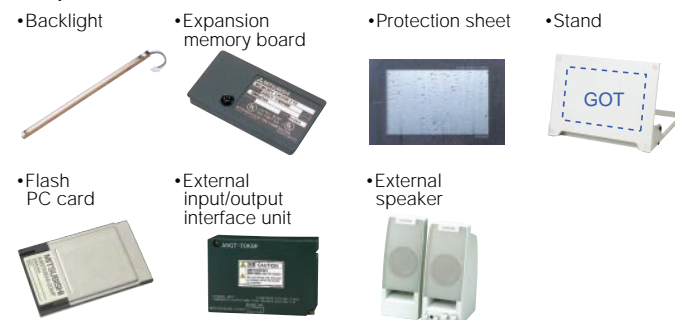


|                |                      |                |              |               |                   |                          |
|----------------|----------------------|----------------|--------------|---------------|-------------------|--------------------------|
| Display device | Intensity            | Display colors | Resolution   | CRT interface | Printer interface | Barcode reader interface |
| TFT display    | 350cd/m <sup>2</sup> | 256 colors     | 800x600 dots | Built-in      | Built-in          | Built-in(RS-232C)        |

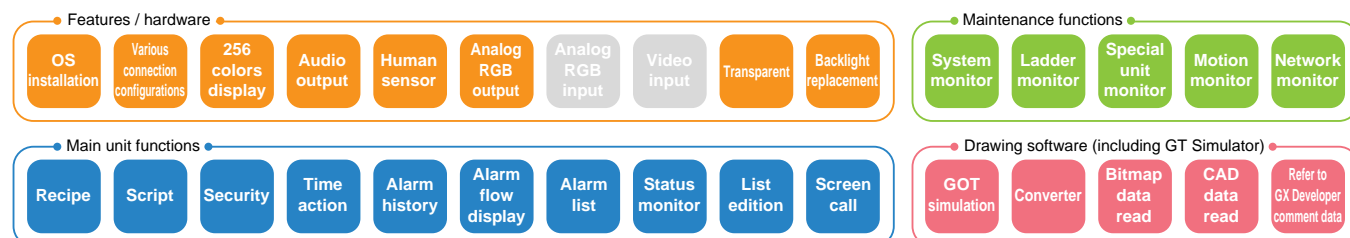
#### Communication unit



#### Optional unit



■ Main functions (Refer to the GOT Dictionary (from page 32 on) and Function List (page 54) for details.)



### Recommended points

#### Human sensor incorporated

**It also saves energy.**

- The person sensor that is installed for the first time in the industry detects the presence of a person and displays the screen automatically. When there is no one around, the backlight can be turned off to save energy in factories.

**20% less**  
(Assuming that the actual work time is 0.5 hours/day for error detection display)

An industry first!

#### CRT interface incorporated

- The contents of the 12" GOT display screen can be displayed on a larger CRT screen.

Larger screen!

#### Compact size

**The size of the control panel is reduced.**

- Industry's smallest and thinnest. (See the table below for details.)

The industry's smallest! Thinnest!

### User-friendly, multi-media functions

#### 256 colors display

**Multi-color vivid display is implemented.**

- The high-intensity (350 cd/m<sup>2</sup>) TFT display can show 256-color vivid high-quality images.
- 256-color bitmap (BMP) file data can be read and digital photographs of machines and parts can be displayed clearly.

the most advanced multi-color display in the industry

#### Audio output

**The machine operating status is vocally reported.**

- Messages and warnings can also be vocally output, so information can be provided audibly.
- An audio message can be created easily by using a Windows® WAV file.

Convenient!

### Maintenance function

Compatibility with the PLC

#### Improve maintainability and reduce running costs.

- The HMI has many maintenance functions to troubleshoot and maintain the sequencer system and streamline maintenance work.
- When the system is connected to a network, all the maintenance functions can be performed on remote terminals from the GOT. (The GOT can perform remote maintenance.)

#### Ladder monitor function

- The PLC CPU program can be monitored in ladder format.

- The search and comment display functions are available.
- The failure cause search function can be used to investigate the cause of trouble easily. (Available for Q (Q mode) ladder monitor, however unavailable for QnA.)

#### System monitor function

- PLC CPU devices and the buffer memory of the special function unit can be monitored and changed.

- A given device can be monitored on four dedicated screens.
- Data can be modified by a testing operation.
- The display format can be changed and comments on devices can be displayed.
- Remote stations can be monitored.

#### Network monitor function

- The MELSECNET/10, (II), /B network status can be monitored.

- Detailed network monitor or remote station monitor can be selected on the local line monitor screen.
- Detailed network information can be monitored on the local detail monitor screen.
- The status of remote stations can be monitored on the remote station monitor screen.

#### Special unit monitor function

- The buffer memory of the special function unit can be monitored and changed on a dedicated screen.

- Monitor on a dedicated screen
- Data change by write operation

\* The image photograph is in the A975GOT size.

| Model name                               | Power supply voltage | AC100~240V<br>DC24V | A985GOT-TBA<br>A985GOT-TBD  | A985GOT-TBA-EU<br>— |
|--|----------------------|---------------------|---|---------------------|
| Display device                           |                      |                     | TFT color display   |                     |
| Display colors                           |                      |                     | 256 colors  |                     |
| Intensity (cd/m <sup>2</sup> )           |                      |                     | 350 (8-step intensity adjustment)                                       |                     |
| Display angle (contrast ratio)           |                      |                     | Right and left: 60 degrees; up: 40 degrees, down: 50 degrees            |                     |
| Resolution (dot)                         |                      |                     | 800 x 600   |                     |
| Number of touch switches that can be set |                      |                     | 1900 (38 lines x 50 columns)  |                     |
| User memory capacity                     |                      |                     | 1MB (Up to 9MB)   |                     |
| External dimensions (mm)                 |                      |                     | 312W x 238H x 49D   |                     |
| Panel width (mm)                         |                      |                     | 43  |                     |
| Panel cut dimensions (mm)                |                      |                     | 302 <sup>+1</sup> / <sub>0</sub> W x 228 <sup>+1</sup> / <sub>0</sub> H |                     |
| Regulation compliance                    |                      |                     | UL/cUL  | UL/cUL,CE           |



# Graphic Operation Terminal 900 series

## A975GOT

### Large size (10") A975GOT

Slim body full of advanced functions



Display device  
**TFT display**

Intensity  
**350cd/m<sup>2</sup>**

Display colors  
**256 colors**

Resolution  
**640x480dots**

Printer interface  
**Built-in**

Bar code reader interface  
**Built-in(RS-232C)**

#### 256 colors display

**Multi-color vivid display is implemented.**

- The high-intensity (350 cd/m<sup>2</sup>) TFT display can show 256-color vivid high-quality images.
- 256-color bitmap (BMP) file data can be read and digital photographs of machines and parts can be displayed clearly.

#### Compact size

**The size of the control panel is reduced.**

- Industry's smallest and thinnest.  
(See the table on page 21 for details.)

#### Maintenance functions

**Improve maintainability and reduce running costs.**

- The HMI has many maintenance functions to troubleshoot and maintain the PLC system and streamline maintenance work.
  - \*List editing function
  - \*Ladder monitor (troubleshooting) function
  - \*System monitor function
  - \*Network monitor function
  - \*Special unit monitor function

#### Recipe function

**Initial values, including machine working conditions, can be easily set.**

- The initial values, such as material blending and processing conditions, can be saved in the GOT memory or on a PC card and can be transferred to a PLC by one operation, conditions can be easily changed.
- The data transfer sequence program is no longer necessary.
- Up to 256 types can be set and the number of words that can be registered is 8K (words/type).

#### Audio output

**The machine operating status is vocally reported.**

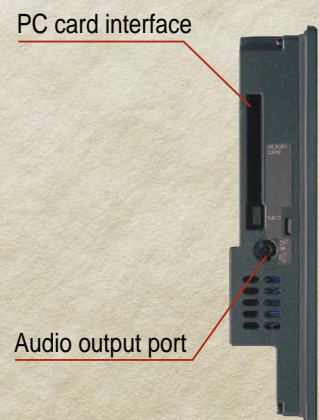
- Messages and warnings can also be vocally output, so information can be provided audibly.
- An audio message can be created easily by using a Windows® WAV file.

# Graphic Operation Terminal 900 series

## A970GOT

### Large size (10") A970GOT

Many standard features



Display device  
**TFT display**

Intensity  
**350cd/m<sup>2</sup>**

Display colors  
**16 colors**

Resolution  
**640x480dots**

Printer interface  
**Built-in**

Bar code reader interface  
**Built-in(RS-232C)**

#### 16 colors with high intensity

**High-intensity and easy-to-see screen display is provided.**

- The high-intensity (350cd/m<sup>2</sup>) TFT display provides clear 16-color display.

#### Quick response

**Stressless display and operation**

- Quick response is realized by bus connection or CPU direct connection.
- Since touch switches, like pushbuttons, can make a quick response, they can be used for inching operation.
- The screens are changed so quickly that it is not irritating during operation.

#### Compact size

**The size of the control panel is reduced.**

- Industry's smallest and thinnest.  
(See the table below for details.)

#### Maintenance functions

**Improve maintainability and reduce running costs.**

- The HMI has many maintenance functions to troubleshoot and maintain the PLC system and streamline maintenance work.
  - \*List editing function
  - \*Ladder monitor (troubleshooting) function
  - \*System monitor function
  - \*Network monitor function
  - \*Special unit monitor function

#### Recipe function

**Initial values, including machine working conditions, can be easily set.**

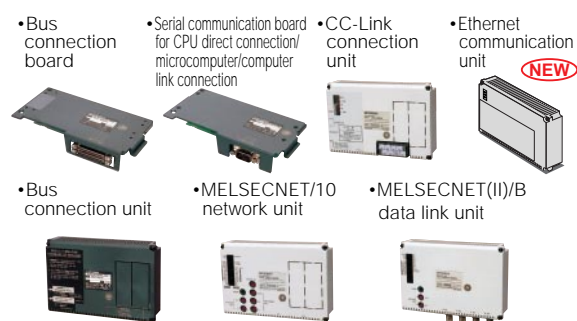
- The initial values, such as material blending and processing conditions, can be saved in the GOT memory or on a PC card and can be transferred to a PLC by one operation, conditions can be easily changed.
- The data transfer sequence program is no longer necessary.
- Up to 256 types can be set and the number of words that can be registered is 8K (words/type).

#### Audio output

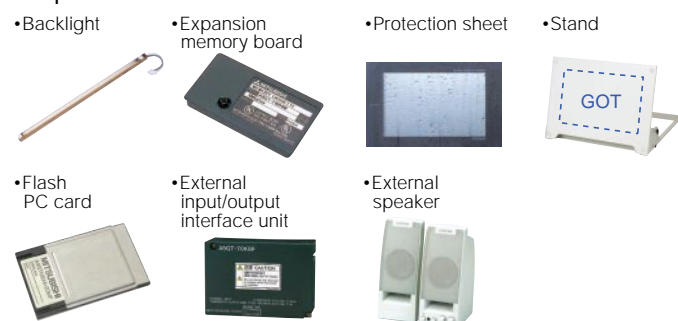
**The machine operating status is vocally reported.**

- Messages and warnings can also be vocally output, so information can be provided audibly.
- An audio message can be created easily by using a Windows® WAV file.

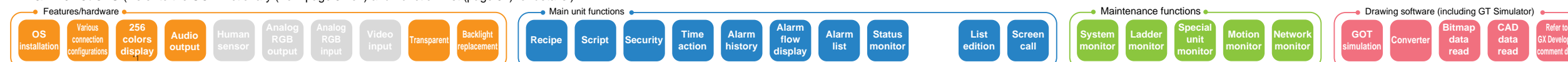
#### Communication unit



#### Optional unit



#### Main functions (Refer to the GOT Dictionary (from page 32 on) and Function List (page 54) for details.)



\*1: A975GOT only

| Model name                               | Power supply voltage | AC100~240V | A975GOT-TBA-B   | A975GOT-TBA-EU | A970GOT-TBA-B | A970GOT-TBA-EU |
|--|----------------------|------------|---|----------------|---------------|----------------|
|  |                      | DC24V      | A975GOT-TBD-B   | —              | A970GOT-TBD-B | —              |
| Display device                           |                      |            | TFT color display   |                |               |                |
| Display colors                           |                      |            | 256 colors  |                | 16 colors     |                |
| Intensity (cd/m <sup>2</sup> )           |                      |            | 350 (8-step intensity adjustment)                                   |                |               |                |
| Display angle (contrast ratio)           |                      |            | Right and left: 50 degrees; up: 40 degrees, down: 45 degrees        |                |               |                |
| Resolution (dot)                         |                      |            | 640 x 480   |                |               |                |
| Number of touch switches that can be set |                      |            | 1200 (30 lines x 40 columns)  |                |               |                |
| User memory capacity                     |                      |            | 1MB (Up to 9MB)   |                |               |                |
| External dimensions (mm)                 |                      |            | 297W x 208H x 46D   |                |               |                |
| Panel width (mm)                         |                      |            | 40  |                |               |                |
| Panel cut dimensions (mm)                |                      |            | 289 <sup>+1</sup> <sub>0</sub> W x 200 <sup>+1</sup> <sub>0</sub> H |                |               |                |
| Regulation compliance                    |                      |            | UL/cUL  | UL/cUL,CE      | UL/cUL        | UL/cUL,CE      |



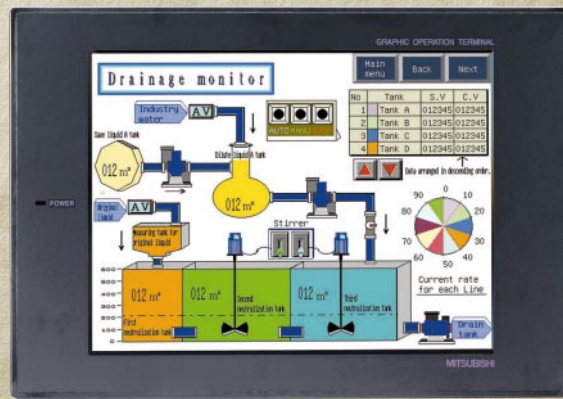
# Graphic Operation Terminal

## 900 series

### A970GOT

## Large size (10") A970GOT

Many standard features



Display device  
D-STN color display  
D-STN monochrome display

Intensity  
**250cd/m<sup>2</sup>**

Display colors  
**8 colors/**  
Monochrome (black and white)

Resolution  
**640x480dots**

Printer interface  
**Built-in**

Bar code reader interface  
**Built-in(RS-232C)**

**STN display**

**Clear screen displays are provided.**

- 8-color and monochrome (white/black) models are available.

Color/monochrome display!

**Compact size**

**The size of the control panel is reduced.**

- Industry's smallest and thinnest.(See the table on page 23 for details.)

The industry's smallest! Thinnest!

**Quick response**

**Stressless display and operation**

- Quick response is realized by bus connection or CPU direct connection.
- Since touch switches, like pushbuttons, can make a quick response, they can be used for inching operation.
- The screens are changed so quickly that it is not irritating during operation.

The industry's fastest!

**Maintenance functions**

**Improve maintainability and reduce running costs.**

- The HMI has many maintenance functions to troubleshoot and maintain the PLC system and streamline maintenance work.
  - \*List editing function
  - \*Ladder monitor (troubleshooting) function
  - \*System monitor function
  - \*Network monitor function

Recommended!

**Recipe function**

**Initial values, including machine working conditions, can be easily set.**

- The initial values, such as material blending and processing conditions, can be saved in the GOT memory or on a PC card and can be transferred to a PLC by one operation, conditions can be easily changed.
- The data transfer sequence program is no longer necessary.
- Up to 256 types can be set and the number of words that can be registered is 8K (words/type).

Convenient!

**Audio output**

**The machine operating status is vocally reported.**

- Messages and warnings can also be vocally output, so information can be provided audibly.
- An audio message can be created easily by using a Windows® WAV file.

Convenient!

**Communication unit**

- Bus connection board
- Serial communication board for CPU direct connection/microcomputer/computer link connection
- CC-Link connection unit
- Ethernet communication unit
- Bus connection unit
- MELSECNET/10 network unit
- MELSECNET(II)/B data link unit

**Optional unit**

- Backlight
- Expansion memory board
- Protection sheet
- Stand
- Flash PC card
- External input/output interface unit
- External speaker

**Main functions** (Refer to the GOT Dictionary (from page 32 on) and Function List (page 54) for details.)

Features/hardware

- OS installation
- Various connection configurations
- 256 colors display
- Audio output
- Human sensor
- Analog RGB output
- Analog RGB input
- Video input
- Transparent
- Backlight replacement

Main unit functions

- Recipe
- Script
- Security
- Time action
- Alarm history
- Alarm flow display
- Alarm list
- Status monitor

Maintenance functions

- System monitor
- Ladder monitor
- Special unit monitor
- Motion monitor
- Network monitor

Drawing software (including GT Simulator)

- GOT simulation
- Converter
- Bitmap data read
- CAD data read
- Refer to GX Developer comment data

\*1: A970GOT only

# Graphic Operation Terminal

## 900 series

### A960GOT

## Large size (9") A960GOT

Inexpensive model



Display device  
**High-intensity EL**

Display colors  
**Monochrome**  
(black/yellowish orange)

Resolution  
**640x400dots**

Printer interface  
**Built-in**

Bar code reader interface  
**Built-in(RS-232C)**

**High-intensity EL display**

**Clear screen displays are provided at a reasonable price.**

- Monochrome (black/yellowish orange) models are available.

**Compact size**

**The size of the control panel is reduced.**

- Industry's smallest and thinnest.(See the table below for details.)

The industry's smallest! Thinnest!

**Quick response**

**Stressless display and operation**

- Quick response is realized by bus connection or CPU direct connection.
- Since touch switches, like pushbuttons, can make a quick response, they can be used for inching operation.
- The screens are changed so quickly that it is not irritating during operation.

The industry's fastest!

**Maintenance functions**

**Improve maintainability and reduce running costs.**

- The HMI has many maintenance functions to troubleshoot and maintain the PLC system and streamline maintenance work.
  - \*Ladder monitor (troubleshooting) function
  - \*System monitor function
  - \*Network monitor function
  - \*Special unit monitor function

Recommended!

**Recipe function**

**Initial values, including machine working conditions, can be easily set.**

- The initial values, such as material blending and processing conditions, can be saved in the GOT memory or on a PC card and can be transferred to a PLC by one operation, conditions can be easily changed.
- The data transfer sequence program is no longer necessary.
- Up to 256 types can be set and the number of words that can be registered is 8K (words/type).

Convenient!

**Audio output**

**The machine operating status is vocally reported.**

- Messages and warnings can also be vocally output, so information can be provided audibly.
- An audio message can be created easily by using a Windows® WAV file.

Convenient!

| Model name                               | Power supply voltage  | AC100~240V<br>DC24V | A970GOT-SBA<br>A970GOT-SBD  | A970GOT-SBA-EU | A970GOT-LBA<br>A970GOT-LBD  | A970GOT-LBA-EU | A960GOT-EBA<br>A960GOT-EBD  | A960GOT-EBA-EU |
|--|---|---------------------|---|----------------|---|----------------|---|----------------|
| Display device                           | D-STN color display   |                     | D-STN monochrome display  |                | High-intensity EL   |                | High-intensity EL   |                |
| Display colors                           | 8 colors  |                     | Monochrome (black and white)  |                | Monochrome (black and yellowish orange)                             |                | Monochrome (black and yellowish orange)                             |                |
| Intensity (cd/m <sup>2</sup> )           | 250   |                     | 250   |                | —   |                | —   |                |
| Display angle (contrast ratio)           | Right and left: 50 degrees; up and down: 30 degrees                 |                     | Right and left: 50 degrees; up and down: 30 degrees                 |                | —   |                | —   |                |
| Resolution (dot)                         | 640 x 480   |                     | 640 x 400   |                | 640 x 400   |                | 640 x 400   |                |
| Number of touch switches that can be set | 1200 (30 lines x 40 columns)  |                     | 1000 (25 lines x 40 columns)  |                | 1000 (25 lines x 40 columns)  |                | 1000 (25 lines x 40 columns)  |                |
| User memory capacity                     | 1MB (Up to 9MB)   |                     | 1MB (Up to 9MB)   |                | 1MB (Up to 9MB)   |                | 1MB (Up to 9MB)   |                |
| External dimensions (mm)                 | 297W x 208H x 46D   |                     | 268W x 192H x 49D   |                | 268W x 192H x 49D   |                | 268W x 192H x 49D   |                |
| Panel width (mm)                         | 40  |                     | 43  |                | 43  |                | 43  |                |
| Panel cut dimensions (mm)                | 289 <sup>+1</sup> <sub>0</sub> W x 200 <sup>+1</sup> <sub>0</sub> H |                     | 258 <sup>+1</sup> <sub>0</sub> W x 183 <sup>+1</sup> <sub>0</sub> H |                | 258 <sup>+1</sup> <sub>0</sub> W x 183 <sup>+1</sup> <sub>0</sub> H |                | 258 <sup>+1</sup> <sub>0</sub> W x 183 <sup>+1</sup> <sub>0</sub> H |                |
| Regulation compliance                    | UL/cUL  |                     | UL/cUL,CE   |                | UL/cUL,CE   |                | UL/cUL,CE   |                |



| Concept | Lineup | Special report<br>Servo-related functions | Special report<br>Gateway functions | Special report<br>GT SoftGOT | Features and<br>recommended points | A985GOT-V | A985GOT | A975GOT<br>A970GOT | A970GOT<br>A960GOT | A956WGOT | A95□GOT | GT Works | Options | GOT<br>dictionary |
|---------|--------|---|-------------------------------------|------------------------------|------------------------------------|-----------|---------|--------------------|--------------------|----------|---------|----------|---------|-------------------|
| P.2 ~   | P.4 ~  | P.6 ~                                     | P.8 ~                               | P.10 ~                       | P.12 ~                             | P.16 ~    | P.18 ~  | P.20 ~             | P.22 ~             | P.24 ~   | P.26 ~  | P.28 ~   | P.30 ~  | P.32 ~            |

| Connection<br>configuration | Connectable<br>model list | Bus<br>connection | Specifications | External<br>dimensions | Function list<br>for each model | Notes<br>for use | List of<br>products |
|-----------------------------|---------------------------|-------------------|----------------|------------------------|---------------------------------|------------------|---------------------|
| P.36 ~                      | P.40 ~                    | P.42 ~            | P.50 ~         | P.52 ~                 | P.54 ~                          | P.56 ~           | P.57 ~              |

# Graphic Operation Terminal 900 series A956WGOT

## Medium size (7") A956WGOT

The industry's first wide and convenient HMI



|                                      |   |                                     |                                   |   |
|--------------------------------------|---|-------------------------------------|-----------------------------------|---|
| Display device<br><b>TFT display</b> | Intensity<br><b>300cd/m<sup>2</sup></b> | Display colors<br><b>256 colors</b> | Resolution<br><b>480x234 dots</b> | Bar code reader interface<br><b>Built-in(RS-232C)</b> |
|--------------------------------------|---|-------------------------------------|-----------------------------------|---|

### Communication unit

- Bus connection board
- Serial communication board for CPU direct connection/microcomputer/computer link connection
- CC-Link connection unit
- Ethernet communication unit **NEW**
- Bus connection unit
- MELSECNET/10 network unit
- MELSECNET(II)/B data link unit

### Optional unit

- Expansion memory board
- Protection sheet
- Stand
- Compact flash PC card \*1
- External input/output interface unit
- Printer interface unit
- PC card interface unit \*1

\*1: When using the compact flash PC card, you cannot use the PC card interface unit.

■ Main functions (Refer to the GOT Dictionary (from page 32 on) and Function List (page 54) for details.)

#### Features / hardware

- OS installation
- Various connection configurations
- 256 colors display
- Audio output
- Human sensor
- Analog RGB output
- Analog RGB input
- Video input
- Transparent
- Backlight replacement

#### Maintenance functions

- System monitor
- Ladder monitor
- Special unit monitor
- Motion monitor
- Network monitor

#### Main unit functions

- Recipe
- Script
- Security
- Time action
- Alarm history
- Alarm flow display
- Alarm list
- Status monitor
- List edition
- Screen call

#### Drawing software (including GT Simulator)

- GOT simulation
- Converter
- Bitmap data read
- CAD data read
- Refer to GX Developer comment data

\*2: Available for ladder monitor of QCPU (Q mode)

### Main features

1.5 times larger than the 6" display!

The industry's first wide 7" display

- Higher resolution (480 x 234 dots) compared with the 6" display

The industry's first wide display!



Compact flash PC card interface as standard

Commercially available compact flash PC cards can be used.

- When a compact flash PC card is used, screen data and OS can be transferred to the GOT at high speed.
- If the screen needs to be changed at a remote site, it can be done without using drawing software by sending a compact flash PC card. It is useful for maintenance.

Convenient!



Effective use of the screen

An industry first!

The extra area on the side of the 6" screen can be used.

- While the 6" screen is displayed as it is, numeric keys and others can be created on empty areas as a fixed screen, therefore window screens and external I/O are not necessary. (Numeric keys have been registered in a template.)



High-intensity 256 colors display

The most advanced multi-color display in the industry

Small but vivid display

- The industry's first, high-intensity (300cd/m<sup>2</sup>), 7" wide, 256-color TFT display can show more vivid, high-quality images.
- 256-color bitmap (BMP) file data can be read and digital photographs of machines and parts can be displayed clearly.

### Maintenance function

Compatibility with the PLC

Improve maintainability and reduce running costs.

- The HMI has many maintenance functions to troubleshoot and maintain the PLC system and streamline maintenance work. (The ladder monitor function is a new feature.)
- When the PLC is connected to a network, all the maintenance functions can be used for other terminals through the GOT. (Remote maintenance can be performed from the GOT.)

### Ladder monitor function **New**

- The QCPU (Q mode) program can be monitored in ladder format.\*2

1: The search and comment display functions are available.

- List program edit function (used for MELSEC-A series)

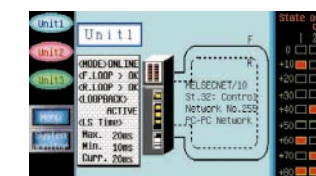
1: Without a peripheral device, you can make on-site minor modifications to sequence programs in list format.



### Network monitor function

- MELSECNET/10, (II), /B network status can be monitored.

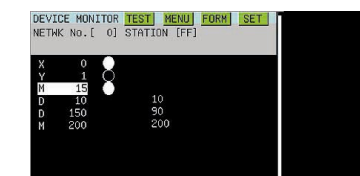
1: Detailed network monitor or another station monitor can be selected on the "local line monitor screen".  
2: Detailed network information can be monitored on the "local detail monitor screen".  
3: The status of other stations can be monitored on the "other station monitor screen".



### System monitor function

- PLC devices and the buffer memory of the special function unit can be monitored and changed.

1: Given devices can be monitored.  
2: Data can be changed by a testing operation.  
3: The display format can be changed and comments on devices can be displayed.  
4: Other stations can be monitored.



| Model name                               | Power supply voltage | DC24V | A956WGOT-TBD  |
|--|----------------------|-------|---|
| Display device                           |                      |       | TFT color display   |
| Display colors                           |                      |       | 256 colors  |
| Intensity (cd/m <sup>2</sup> )           |                      |       | 300 (8-step intensity adjustment)                                       |
| Display angle (contrast ratio)           |                      |       | Right and left: 65 degrees; up: 40 degrees, down: 65 degrees            |
| Resolution (dot)                         |                      |       | 480 x 234   |
| Number of touch switches that can be set |                      |       | 450 (15 lines x 30 columns)   |
| User memory capacity                     |                      |       | 1MB (Up to 9MB)   |
| External dimensions (mm)                 |                      |       | 215W x 133H x 70.8D   |
| Panel width (mm)                         |                      |       | 65.8  |
| Panel cut dimensions (mm)                |                      |       | 205.5 <sup>+1</sup> <sub>0</sub> W x 123.5 <sup>+1</sup> <sub>0</sub> H |
| Regulation compliance                    |                      |       | UL/cUL, CE  |



Graphic Operation Terminal

900

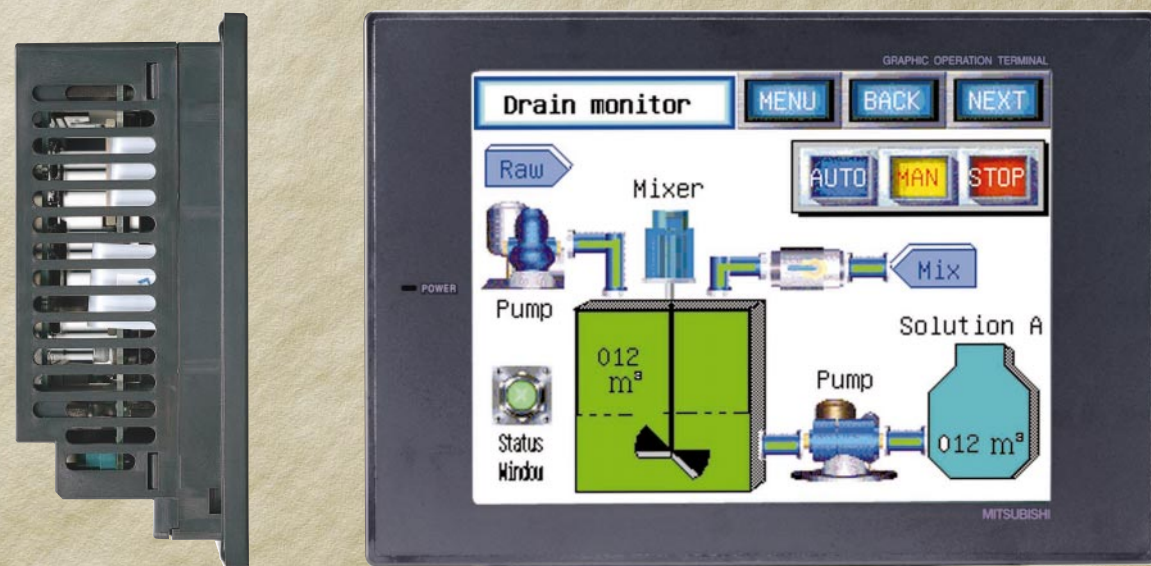
series

A95□GOT

Medium size (6")

A95□GOT

6" high-function type supporting various connection methods



|                 |  |   |              |                          |
|-----------------|--|---|--------------|--------------------------|
| Display device  | Intensity  | Display colors                                | Resolution   | Barcode reader interface |
| TFT/STN display | 350cd/m <sup>2</sup><br>110cd/m <sup>2</sup><br>200cd/m <sup>2</sup> | 256 colors<br>8 colors<br>2 monochrome colors | 320x240 dots | Built-in(RS-232C)        |

■ Communication unit

• Bus connection unit

• CC-Link connection unit

• Ethernet communication unit **NEW**

• MELSECNET/10 network unit

• MELSECNET (II)/B data link unit

■ Optional unit

• Backlight

• Protection sheet

• Stand

• PC card interface unit

• External input/output interface unit

• Printer interface unit

■ Main functions (Refer to the GOT Dictionary (from page 32 on) and Function List (page 54) for details.)

● Features / hardware

OS installation

Various connection configurations

256 colors display

Audio output

Human sensor

Analog RGB output

Analog RGB input

Video input

Transparent

Backlight replacement<sup>\*2</sup>

● Maintenance functions

System monitor

Ladder monitor

Special unit monitor

Motion monitor<sup>\*3</sup>

Network monitor<sup>\*3</sup>

● Main unit functions

Recipe<sup>\*3</sup>

Script

Security

Time action

Alarm history

Alarm flow display

Alarm list

Status monitor

List edition<sup>\*3</sup>

Screen call

● Drawing software (including GT Simulator)

GOT simulation

Converter

Bitmap data read

CAD data read

Refer to GX Developer comment data

<sup>\*1</sup>: A95□GOT-TBD only  
<sup>\*2</sup>: Except A95□GOT-TBD  
<sup>\*3</sup>: A95□GOT-M3 only

Main features of A95□GOT series

Various connection configurations!

Many choices!

Supports various connection configurations!

- The A950/A951/A953GOT contains a communication interface for each model, so it is not necessary to install any communication board or unit on the GOT.
- The A956GOT can be connected to a bus, MELSECNET, or CC-Link by installing a communication unit.
- The A950/A953GOT can be connected with a PLC or microcomputer provided by other manufacturers.

Quick response

The industry's fastest!

Stressless display and operation

- Quick response is realized by bus connection or CPU direct connection.
- Since touch switches, like pushbuttons, can make a quick response, they can be used for inching operation.
- The screens are changed so quickly that it is not irritating during operation.

Choices of display colors

•Display colors: 2 colors (STN white/black), 8 colors (STN colors), 256 colors (TFT colors)

Supports full graphics.

•Figures or objects, such as ovals and arcs, can be displayed in the same way as on a large HMI.

Especially!

Model: A95□GOT-(Q)TBD-□

Extremely vivid and clear!

The most advanced multi-color display in the industry

Though medium-sized, these models support 256 TFT colors.

- The high-intensity (350 cd/m<sup>2</sup>, 8-level intensity adjustment) TFT display can show 256-color, clear, high-quality images.
- 256-color bitmap (BMP) file data can be read and digital photographs of machines and parts can be clearly displayed.

Backlight replacement is rarely required!

Easy maintenance

A maintenance-free system can be implemented easily.

- The TFT type has a long-life backlight that lasts 50,000 hours, so the backlight need not be replaced for more than 10 years (on the assumption that the HMI is used 12 hours a day, 300 days a year). The service life can be extended further by the backlight off function.

Further!

Model: A95□GOT-□-M3

Functions useful for equipment or machine startup and maintenance are available.

List programs can be edited.  
(Used for the MELSEC-A series)

- Without a peripheral device, you can make on-site minor modifications to sequence programs in a list format.

Network can be monitored.

- The MELSECNET/10, (II) or /B network status can be monitored.

Recipe function is available.

- Initial values, including machine working conditions, can be easily set.
- The initial values, such as material blending and processing conditions, can be saved in the GOT memory or on a PC card and can be transferred to a PLC by one operation, conditions can be easily changed.
- The data transfer sequence program is no longer necessary.
- Up to 256 types can be set and the number of words that can be registered is 8K (words/type).

| Model name                               | Top (TFT color)         | A950GOT-TBD-(M3)   | A951GOT-QTBD-(M3)  | A951GOT-TBD-(M3) | A953GOT-TBD-(M3) | A956GOT-TBD-(M3)                |
|--|-------------------------|--|--|------------------|------------------|---------------------------------|
|  | Middle (STN color)      | A950GOT-SBD-(M3)   | A951GOT-QSBD-(M3)  | A951GOT-SBD-(M3) | A953GOT-SBD-(M3) | A956GOTSBD-(M3)                 |
|  | Bottom (STN monochrome) | A950GOT-LBD-(M3)   | A951GOT-QLBD-(M3)  | A951GOT-LBD-(M3) | A953GOT-LBD-(M3) | A956GOT-LBD-(M3)                |
| Connection configuration                 |                         | RS-422   | Bus (Q series: Q mode) *4 Bus (QnA, A series, motion) *4 |                  | RS-232C          | Communication unit interface *5 |
| Display device                           | Top/middle/bottom       | TFT color display / STN color display / STN monochrome display   |  |                  |                  |                                 |
| Display colors                           | Top/middle/bottom       | 256 colors / 8 colors/monochrome   |  |                  |                  |                                 |
| Intensity (cd/m²)                        | Top/middle/bottom       | 350 (8-step intensity adjustable) / 110 / 200  |  |                  |                  |                                 |
| Display angle (contrast ratio)           | Top/middle/bottom       | Right and left: 65 degrees; up: 65 degrees, down: 40 degrees/right and left: 50 degrees; up: 45 degrees, down: 60 degrees/right and left, down: 30 degrees; up: 20 degrees |  |                  |                  |                                 |
| Power supply voltage                     |                         | DC24V  |  |                  |                  |                                 |
| Resolution (dot)                         |                         | 320 x 240  |  |                  |                  |                                 |
| Number of touch switches that can be set |                         | 300 (15 lines x 20 columns)  |  |                  |                  |                                 |
| User memory capacity                     |                         | M3 type: 3MB/others: 1MB   |  |                  |                  |                                 |
| External dimensions (mm)                 | Top/middle, bottom      | 164.5W x 136H x 65D/164.5W x 136H x 57D  |  |                  |                  |                                 |
| Panel width (mm)                         |                         | 156 <sup>+1</sup> <sub>0</sub> W x 123.5 <sup>+1</sup> <sub>0</sub> H  |  |                  |                  |                                 |
| Panel cut dimensions (mm)                | Top/middle, bottom      | 59/51  |  |                  |                  |                                 |
| Reguraltion Compliance                   | Top                     | UL/cUL   | UL/cUL   | UL/cUL           | UL/cUL           | UL/cUL                          |
|  | middle                  | UL/cUL, CE   | UL/cUL   | UL/cUL, CE       | UL/cUL, CE       | UL/cUL, CE                      |
|  | bottom                  | UL/cUL, CE   | UL/cUL   | UL/cUL, CE       | UL/cUL, CE       | UL/cUL, CE                      |

<sup>\*4</sup>: For a single unit or the last one of several units for bus connection. Use the A956GOT-(Q)-TBD-(M3) to connect multiple units.  
<sup>\*5</sup>: The communication unit interface supports bus connection (several units), MELSECNET connection, CC-Link connection and Ethernet connection.



SOFTWARE

Screen development from creation to debugging will be changed.



Integrated screen development software

GT Works

Graphic Operation Terminal  
900 series

GT Works is an integrated screen development software package containing GOT-900 series drawing software, GT Designer (SW□D5C-GOTR-PACKE), and GOT simulation software, GT Simulator (SW□D5C-GSSE). The requirements, such as drawing time reduction and development efficiency improvement, can be satisfied by integrating the reinforced drawing environment for GT Designer and the ultimate debugging environment for GT Simulator.

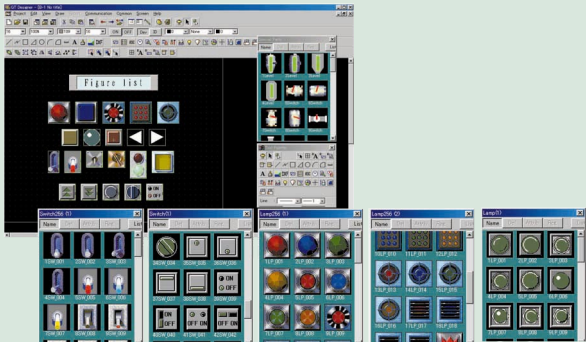
GOT drawing software

GT Designer

GT Designer is a drawing software package for all GOT900 series, and can be used for drawing with the GOT-A900 and GOT-F900 series. Since the customers wish to "reduce drawing time", it is urgent to improve drawing productivity. GT Designer provides a new drawing environment to meet your expectations.

Main features of the GT Designer

- 1.Simple drawing using templates
- Registered components can be extracted easily from templates.
- 2.Complete parts library
- Since there are many registered parts that support 256 colors, drawing efficiency is improved.
- 3.Basic/extended setting screen selection
- When conditions are specified, only the basic setting screen is displayed; the tabs of the unnecessary functions are not shown. Detailed conditions can be set on the detailed setting screen. Work efficiency can be improved by separating the basic setting screen from the detailed setting screen.
- 4.Conversion function
- Screen data created for GP can be converted to data for the A900GOT so that the resources can be fully utilized.
- 5.Drawing for the GOT-F900 series is also possible
- GT Designer is a drawing software package for all GOT900 series, and can be used for drawing with the GOT-A900 and GOT-F900 series.



GT Designer operating environment

| Item       |                       | Recommended personal computer specification  |
|------------|-----------------------|--|
| OS         |                       | Microsoft® Windows®95 operating system, Windows®98, Windows® Millennium Edition, Windows® NT Workstation 4.0 + Service Pack3 or later, Windows®2000 Professional |
| CPU        |                       | Pentium® 133 MHz or higher is recommended.   |
| Memory     |                       | 64 MB or more  |
| Hard disk  | Standard installation | 130 MB or more (80 MB or more during installation, 50 MB or more during execution)   |
|            | Compact installation  | 95 MB or more (45 MB or more during installation, 50 MB or more during execution)  |
| Display    |                       | 800 x 600 dots or more   |
| Disk drive |                       | CD-ROM drive is required.  |

GT Designer or GT Works can be purchased.

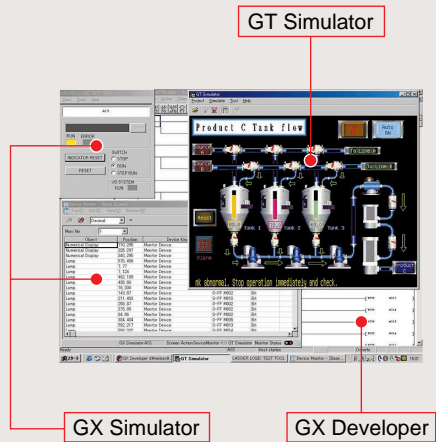
GOT simulation software

GT Simulator

The GOT-A900 series screen can be simulated on a personal computer to debug the screen. If the screen needs to be modified as a result of debugging, it can be done with GT Designer and the result can be checked with GT Simulator immediately, so debugging time can be reduced drastically.

Main features of GT Simulator

1. Debugging similar to the actual image can be performed on a personal computer.
- Device value changes are displayed during simulation of a created sequence program with GT Simulator and GX Simulator (ladder logic test tool).
- The device value change function of GX Simulator can be used to change device values forcibly and check screen display changes.
2. Touch switch input simulation with a mouse
- The input to a touch switch is simulated by clicking on the touch switch on GT Simulator with the mouse.
- The result of input to the touch switch can be confirmed by a display change on GT Simulator, the device monitor screen on GX Simulator, or the ladder monitor of GX Developer.
3. More convenient by improved functions
- GT Simulator supported only MELSEC-A series CPU, however, it now supports MELSEC-Q/QnA/FX series CPU by functional improvement. In addition, it can simulate the recipe function.



GT Simulator operating environment

| Item                    | Recommended personal computer specification   |
|-------------------------|---|
| OS                      | Microsoft® Windows®95 operating system, Windows®98, Windows® Millennium Edition, Windows® NT Workstation 4.0 + Service Pack3 or later, Windows®2000 Professional  |
| CPU                     | Pentium® 266 MHz or higher is recommended.  |
| Memory                  | 96 MB or more   |
| Free hard disk capacity | 150 MB or more (100 MB or more during installation, 50 MB or more during execution)   |
| Display                 | 800 x 600 dots or more  |
| Notes                   | •GT Simulator cannot simulate the following GOT functions: [Print functions (report, hard copy, alarm print), external input/output function, ladder monitor function, system monitor function, special unit monitor function, list edition function].<br>•When the GT Simulator is used, a GX Simulator is required. [Use SW5D5C-LLT version A or later for the GX Simulator:ACPU connection, and SW5D5C-LLT version E or later for the Q/QnA/FX connection.]<br>•When a PLC made by another manufacturer is used with the GT Simulator, debugging can be performed by using the MELSEC device expression by changing screen project data "PC type" to MELSEC CPU type.<br>•If a GT Simulator is connected with a MELSEC PLC, connect the RS-422 port of the CPU with the RS-232C port of the personal computer. Use an RS-422-to-RS-232C converter. |

Remarks: It can be executed in the same environment as for GT Designer.

When using GT Simulator, purchase GT Works.







Graphic Operation Terminal

900

series

GOT Dictionary

Advanced features increase your satisfaction!

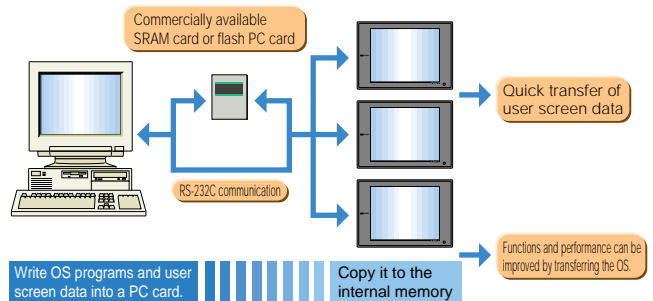
Features / hardware

OS  
installation

OS/screen data transfer to PC card

In addition to data transfer using RS-232C communication, a PC card (flash PC card or SRAM card) can be used to replace screen data and OS programs, so the time to change data can be reduced greatly. When a PC card is used, it is not necessary to move the personal computer or cables. (The A95□GOT requires a PC card interface unit.)

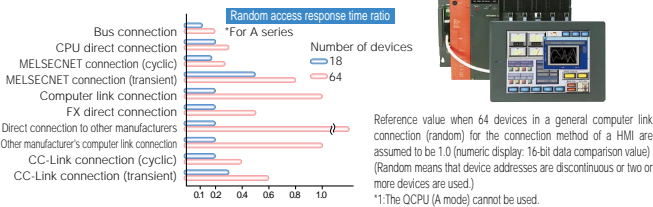
- Created screen data can be saved with a PC card on a personal computer, and can be copied (transferred) quickly to the GOT by inserting the PC card into it.
- Screen data from the GOT can be saved on a PC card and edited on a personal computer.
- PC card for OS programs (basic OS, communication drives, expanded OS, etc.) can be created on a personal computer and can be copied quickly to the GOT, so it can be updated to the latest functions in a short time. (OS programs and screen data can be saved on a single PC card.)



Various  
connection  
configurations

Bus connection/computer link connection/CPU direct connection/MELSECNET connection/CC-Link connection

- Supports high-speed display and quick response for inching, which is indispensable for control panel operation.
- The fastest bus connections are implemented when MELSEC-Q/QnA/A PLCs are used.\*1
  - The Q series can connect with up to 5 GOTs, and the QnA/A series, up to 3 GOTs.
  - The original performance is maintained even when the maximum number of GOTs are connected.
  - A quick response can be made during MELSECNET and CC-Link cyclic communication in the same way as for bus connections.



\* For information on features of each connection configuration, the maximum number of GOTs connected, and the maximum connection distance, see pages 36 to 39.

Compact  
size

The industry's smallest size is implemented. Since the control panel or operation panel can be downsized, space can be saved and costs can be reduced.

256  
colors  
display

256 colors can be displayed at the same time. Beautiful screen displays can be implemented.

Audio  
output

Windows® WAV files can be played back. Audio output can be achieved just by connecting a speaker with a built-in amplifier \*1 to the standard audio output connector. (Not supported by the A95□/A95□handy/A956WGOT.)

Printer  
output

The HMI is equipped with a standard printer port (Centronics parallel interface, 20 pins, half pitch). (The A95□/A956WGOT requires A9GT-50PRF.) The following printer functions are supported.

- Alarm history printing
- Daily/monthly report output (form print)
- Display screen color hard copy
- Bitmap data output to PC card (snapshot)

Human  
sensor

- The following printers\*1 can be connected:
- ESC/P24-J84 printer (ESC/P commands, color)
  - \*ESC/P is a control code system standardized by Seiko Epson.
  - Hewlett-Packard printer (PCL commands, color)
  - Chinese printer (character code GB or BIG5)

The person approaching the display can be detected, which makes the screen automatically on. When there is no one nearby, the backlight is turned off to save energy. This function extends the life of the backlight and save energy also.

Analog  
RGB  
output

The GOT display screen can be displayed on an external CRT. Data can be viewed on a larger screen.

Analog  
RGB  
input

The personal computer screen display with SVGA (800 x 600 dots) and VGA (640 x 480 dots) resolutions is supported. The cost of the CRT for the personal computer can be saved by using the display in place of the CRT.

Video  
input

Up to 4 video cameras can be connected with a GOT to display all images at the same time. This eliminates using several CRTs if the system using a number of vision sensors simultaneously.

Transparent

The GPP function software can be used when the GOT is connected directly with the PLC CPU.

- \*CPU direct connection
- Bus connection

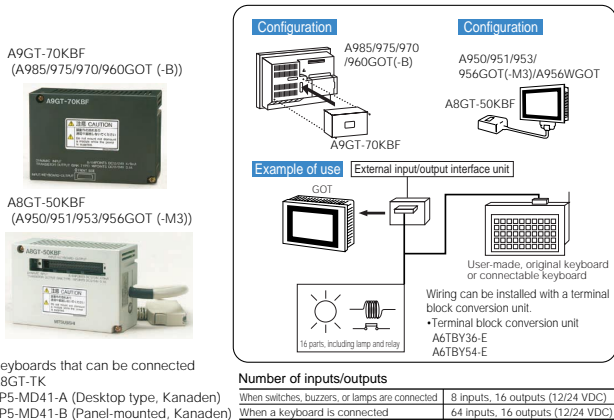
Barcode  
reader

Data read with a barcode reader is stored in a specified device as ASCII code.

\*The barcode reader requires an external power supply.

External  
input/output  
interface

When the external input/output unit is installed on the GOT, input/output can be performed for the GOT or it can be operated with a keyboard. The keyboard can be just-made.



Backlight  
replacement

The backlight can be replaced easily in the field. The EL has no backlight, so replacement is not required. See the Product List (page 58) for ordering a backlight.

Environment  
resistance  
(IP65F)

Protection sheet

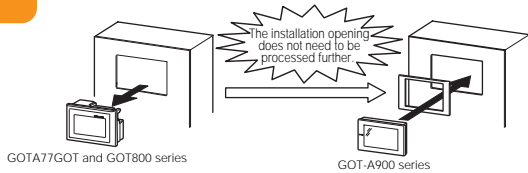
The protection sheet is used to protect the GOT screen. (This comes in set of 5) The logo can be removed. (The A985 (-V) / 975 / 970 / 960GOT(-B) / A95□GOT(M3)/A956WGOT has no logo.) Be sure to use a protection sheet for screen protection. The HMI is supplied with a protection sheet.

IP65F

The front panel supports the IP65F, so it can be used safely in dusty, humid, or oily places.

Attachment

If this attachment is used when replacing the A77GOT or GOT800 series with GOT-A900 series, the installation opening does not need to be changed.



Refer to the optional parts (page 31) for the attachment types.

Main unit functions

Multi-  
language

Worldwide language support with Unicode

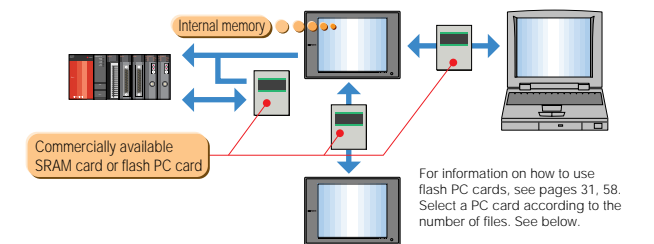
- The GOT-A900 series can display various languages, including Japanese, Korean, Chinese (Kanshotai (China), Hanshotai (Taiwan)), English, German, French, Portuguese, Polish, and Spanish. International standard, Unicode (ISO/IEC 10646), is used as character sets.
- When screens are created in a language, that language version of Windows® should be used.
- To create screens in Chinese or Korean, use the English version of drawing software with its language version of Windows®.



Recipe

An expansion memory board is necessary \*2

- Several kinds of data items (device values), such as material blending and processing conditions, can be stored in the GOT and necessary data can be transferred to the PLC. Thus, the sequence program for data transfer is not necessary.
- Device data read from the PLC can be stored as a file on a PC card (flash PC or SRAM card). It can be used on another GOT and managed on a personal computer using a spreadsheet program, such as Excel®. It is useful for process control and production management. Values can be modified with spreadsheet software on a personal computer. The resulting values (modified values) can be transferred to the PLC and result values (return values) can be stored on the PC card.
- When device data only is being transferred from the GOT to the PLC, no PC card is required. (Because data, such as initial values, can be stored in internal memory (flash ROM) of the GOT as screen data)



| Monitor condition                                | Read condition bit   | Number of files | PC card size     |
|--|--|-----------------|------------------|
| Write condition bit                              | 128  | 128             | 1M, 2M bytes     |
| Maximum number of settings                       | 256 files (A PC card with 4M bytes or more is required)        | 256             | 4M bytes or more |
| Maximum number of data items registered per file | Number of devices: 8K words                                    |                 |                  |
| Maximum data amount                              | File size when it is saved in a memory card: Approx. 56K bytes |                 |                  |
| When a file is 8K words                          |  |                 |                  |

Select PC card capacity by calculating the number of settings and registrations.

[Calculation formula: Memory capacity when PC card is used]

117 x number of recipe files + 9 x total number of 16-bit devices in each recipe file + 14 x total number of 32-bit devices in each recipe file = 117 x 200 + 9 x 1000 x 200 = 1217800 (bytes)

If the number of files is 16 and the number of 16-bit devices is 200, the required PC card capacity is 4M bytes or more.

Note: This is the simplest calculation example. Refer to the GT Works Version□GT Designer Version□Reference Manual for details.

<Calculation example>

Blending condition data

Data values, such as processing condition data \*1

Recipe File 1

Recipe File 2

Recipe File 200

word device \*1

Data 1

Data 2

Data 3

Data 4

Script

The GOT display can be controlled by programming (script) on the GOT, and arithmetic and logical operations can be expressed easily and clearly. Since the GOT display control program created by the PLC is not required, the number of sequence programs is reduced. Thus, the PLC performance, design efficiency and maintenance can be improved.

Security

16 levels of security can be set. Protection with a password is possible. (A password is required to change security level.)

Screen level security

- The screen can be protected from change, part of the display can be hidden, or input operation can be protected.
- Switching to optional functions, such as system monitor and special unit monitor functions, can be protected.

System level security

- Switching to system screens (utility function), such as setup screen, is protected.
- Reading circuits with the ladder monitor function is protected with a keyword that is registered with the GX Developer.

Project level security

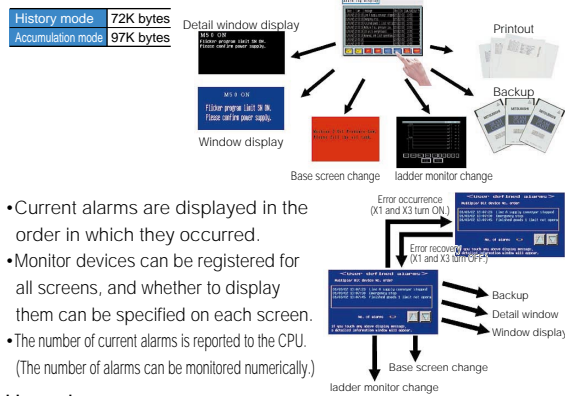
- Screen data is protected from uploading.

Time  
action

Since an action can be carried out at a specified time on a specified day of the week, machine operation instruction and audible communication can easily be performed.

Alarm  
history

- The dates that alarms occurred, their descriptions, and recovery/confirmation time are displayed.
- Either history mode or accumulation mode (time/frequency) can be selected.
- Alarms can be reset.
- Action to be taken when the maximum history data is stored can be specified. When the oldest history data is deleted, history collection continues. When history collection cancel is selected, history collection is canceled.
- The number of alarms in the history is reported to the CPU. (The number of alarms can be monitored numerically.)
- History data can be saved on a PC card. (Up to 3072 data items immediately before the CPU or microcomputer of the GOT and connected devices is powered off are stored) PC card capacity is as follows.



Alarm  
flow  
display

- Current alarms are displayed in the order in which they occurred.
- Monitor devices can be registered for all screens, and whether to display them can be specified on each screen.
- The number of current alarms is reported to the CPU. (The number of alarms can be monitored numerically.)

Alarm  
list

- User alarm
- The dates alarms occurred and their descriptions are displayed.
- Only the current alarms are displayed. Restored alarms are automatically cleared from the screen.
- The ascending or descending order of dates can be specified.
- The order in which alarms occurred or order of numbers can be specified.
- The number of current alarms is reported to the PLC. (The number of alarms can be monitored numerically.)
- System alarm
- PLC CPU or network connection errors or GOT errors are displayed by specifying a display area only.
- Predefined messages are displayed.

322 The designation device is outside the range. 16:40:00  
104 Parameter error  
246 Data is not received from the master station.

\*1: For the cutting-edge information on the models that have been confirmed to operate properly, check them on the MELFANSweb home page at <http://www.nagoya.melco.co.jp/>  
\*2: Among the A95□GOTs, only the A95□GOT-M3 is usable.



Graphic Operation Terminal

9000series

GOT Dictionary

Advanced features increase your satisfaction!

- Data list

- Data can be displayed as lists.
  - Five elements can be displayed on a single line. (Up to 128 lines)
  - Data is sorted and displayed in the order of device values to be monitored. Data can be displayed in either the descending order of tool use frequency (life) or number of failures.

Example of setting 5 elements

| Line | Device        | Unit   | Value  | Comment |
|------|---------------|--------|--------|---------|
| 1    | Defect Line 8 | 012961 | 012961 | 012961  |
| 2    | Defect Line 8 | 012961 | 012961 | 012961  |
| 3    | Defect Line 2 | 012961 | 012961 | 012961  |
| 4    | Defect Line 3 | 012961 | 012961 | 012961  |
- Status monitor

- If a combination of ON/OFF conditions for two devices is valid, it is reported to an external unit or PLC CPU. Audio output, bit ON/OFF, bit inversion, momentary, or data set (fixed value/indirect value) can be selected.
  - All screens and an individual screen can be used at the same time.
  - It is effective as background processing for display conditions, write conditions, or report print conditions.

<Data set example>

B0 B1

MVPP 10 W100

<Bit momentary example>

B10 B11

B100
- Display condition specification

- Continuous trigger : The display is always updated.
  - Periodical trigger : A display interval can be specified (in seconds).
  - Edge trigger : ON/OFF display  
It can be displayed when a specified device is turned on or off. It can be displayed forcibly when the screen is switched.
  - Level trigger : ON/OFF display  
It is always displayed when a specified device is ON or OFF. Whether to retain or clear the display can be specified when a trigger is invalid.
- Display switching

- Switching by bit (2 combinations) The display is switched when a monitor device is ON or OFF.
  - Switching by word (63 combinations)  
Display color, etc. can be specified by setting a range of values using a comparison equation (inequality).  
A constant or word device can be specified for a comparison term.
- Indirect specification (offset device)

- Since several data items can be displayed or input in one location, a setting can be input to multiple devices.
  - An offset device can be set for each object.
- PLC station number switching

- The PLC station number can be switched and a remote station can be monitored on a screen, so the screen does not need to be changed for each PLC station number. (Effective during transient communication.)
  - Since the station number is switched by changing the station number device value, it can be done easily with a touch switch or a sequence program.
- Screen call

- Since the common parts of several screens can be created and displayed as a separate screen, screen data can be reduced.
  - Several screens being used can be changed by modifying the call screen only.
  - Downloading time can be reduced by transferring screens one at a time.
  - There is no limit to the number of screens that can be called.

A variety of touch switches

Time delay switch function

ON delay: This switch works when it is kept pressed for a specified period of time. This protection function prevents a switch from being activated when it is touched by mistake.

OFF delay: This touch switch continues output for a specified period of time after the switch is released. (The time can be set from 1 to 5 seconds.)

1-second

Press

When the signal is ON

Release

1-second

When the signal is ON

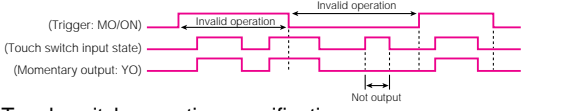
Release

1-second delay

**Double-press switch function**  
This switch is activated only when it is pressed once and then pressed again within a specified period of time. It can be used as a covered switch function. (The time can be set from 1 to 5 seconds.)

**Operating condition (trigger) specification** (Interlock function)  
Operation protection can be set easily for the touch switch or numeric input function by specifying operating conditions.

- Works when a bit device is specified (ON/OFF).
- Works when a word device is within a specified range.



Touch switch operation specification

- When 3 or more keys are pressed at the same time, it is automatically ignored.
- Simultaneous pressing inhibited  
Used to prevent two bit momentary switches from being operated simultaneously, for example.

ON priority

Switch 1

Switch 2

OFF priority

Switch 1

Switch 2

Touch switch area specification

- The wrong input of an adjacent touch switch can be prevented by setting an effective area.
- In switch figure or "Including figure" can be selected for the switch operation effective area.

16 bits

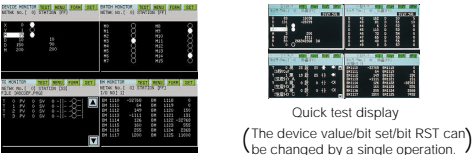
16 bits

**Offset specification**  
An offset (index qualification) can be specified by writing a word for a touch switch.  
Write device: D100  
Offset device: W0  
If W0 is 0, data is set at D100.  
If W0 is 1, data is set at D101.  
If W0 is 2, data is set at D102.

Maintenance functions (when MELSEC Q/QnA/A/FX CPU or motion controller is connected)

- System monitor

- Since device values (including timer/counter settings) can be monitored and changed easily, a separate device check maintenance screen does not need to be created.
  - You can toggle between decimal and hexadecimal display, between 16-bit and 32-bit display, and comment display.
  - Different PLC devices can be displayed on 4 windows at the same time. The registration monitor, batch monitor, timer/counter monitor, and BM (buffer memory) monitor can be displayed and changed (including timer/counter settings) together with each window.
  - This function can be disabled by setting a password.
  - The A95□(W)GOT(-M3)(-H) displays a window screen.



Ladder monitor

- Device values (including timer/counter settings) can be changed on the device test window.
- The search function and comment display are included. The search functions are, step search, contact/coil search, single rung search, and circuit end search.
- The cause of problems can be investigated easily by the defect search<sup>2</sup> function. (Cause search cannot be used for the QnA ladder monitor. Q (Q mode) ladder monitor soon to be supported.) Any contacts that cause inactive coils can be automatically searched and displayed.
- This function can be disabled by setting a password.
- The A95□(W)GOT(-M3)(-H) cannot use this function.
- If a changed file is displayed when QnACPU timer/counter setting is to be changed, read the sequence program again.
- Machine names, statements, or notes cannot be displayed in any comments of QnA ladder monitor.
- One of MELSEC-A, QnA, Q and FX can be used.

Ladder monitor

Cause search result screen

Key window for device specification

<sup>1</sup>:Supported by the A95□GOT-M3.  
<sup>2</sup>:Defect search diagnoses the alarm.

Special unit monitor

- Unit configuration is automatically determined and a menu is displayed. The details on each unit can be displayed on dedicated screens (approx. 300 screens). I/O information and buffer memory values of the special function unit can be displayed clearly, and special X/Y and buffer memory data can be modified.
- It is not necessary to create a screen for I/O check and special function unit maintenance.
- It can be used to start a machine or check special function unit operation.
- It can be read from the user screen and used freely as a screen library.
- This function can be disabled by setting a password.
- The A95□(W)GOT(-M3)(-H) cannot use this function.

[Special function units that can be monitored]

A series unit

<Positioning units>  
For large units:AD75, AD70, AD70D, AD71, AD72  
For small units:A1SD75, A1SD70, A1SD71

<Analog units>  
For large units:A68AD, A68ADN, A616AD, A616TD, A68RD, A62DA-S1, A616DAV, A616DAI, A84AD  
For small units:A1S64AD, A1S62DA, A1S62RD, A1S63ADA, A1S68DAV, A1S68DAI, A1S68AD

<Others>  
For large units:Input unit, output unit, AD61, A61LS, A62LS-S5, AJ71PT32-S3 (32/48), AJ71ID1-R4, AJ71ID2-R4  
For small units:Input unit, output unit, A1SD61, A1SJ71PT32-S3 (32/48 points), A1SJ71ID1-R4, A1SJ71ID2-R4, A1S64CTT-S1, A1S64CTTBW-S1, A1S64TCRT-S1, A1S64TCRTBW-S1

Q series unit

<Positioning units>  
QD75M, QD75P, QD75D  
Input unit  
Output unit

<Analog units>  
Q64AD, Q68ADV, Q68ADI, Q62DA, Q64DA, Q62E, Q62D

List edition

- Sequence programs can be edited as lists. (The key layout and operation are the same as for the A8UPU.)

**Applications**  
Minor changes can be made to programs in the field. Sequence programs can be edited easily without using peripheral equipment.

**Functions and operations**  
List:4-line display  
Applicable PLCs:MELSEC-A series  
Program edition:Editing is possible when the PLC stops.

Drawing software (including GT Simulator)

GOT simulation

The GOT-A900 series screen can be simulated on a personal computer to debug the screen. If the screen needs to be modified as a result of debugging, it can be done using drawing software (GT Designer) and the results can be checked immediately with the GT Simulator, so debugging efficiency can be greatly improved.

GX Simulator

GT Simulator

GX Developer

Device monitor

Started from GT Simulator. A list of devices being used on the screen currently displayed by GT Simulator are displayed. Since GOT internal devices (GB, GD, GS) can also be monitored, debugging efficiency can be further improved.

Converter

**Screen data of conventional HMI**

- GOT800 series screen data can be used 100%. In addition, data size can be reduced to approx. 70% by conversion or reuse.
- A77GOT and AD57G-S3 screen data can be used for the GOT900 series by converting it to GOT800 series data using the SW3NIW-A8GOTP packed with the SW□D5C-GOTR PACK(E)(V), then converting it to data for the GOT900 series.
- GP (GP-PRO/PB for Windows®/DOS) screen data can also be used for the GOT900 series by converting it with the simplified data conversion function. (Some functions may not be converted.)

Project manager

**Screen data can be managed freely with Project Manager.**

- Project and screen information can be viewed at a glance on 3 separate windows.

Motion monitor

- List programs are displayed in a window from the ladder monitor, and on the base screen from the monitor screen.
- The keyword set for the sequence program is checked, and if it is correct, lists can be edited to assure security.
- Lists can be displayed in English.
- The list program edition screen can be hard copied and stored as history.

The servo monitor and parameter setting of the Q series motion controller (Q172CPU, Q173CPU) can be performed on the GOT screen. Parameter setting/monitoring is enabled for up to 3 Q172CPUs or Q173CPUs on the base.

PLC (Multi PLC system)

GOT

Use GOT utility screen or touch switch function to switch between screens.

Network monitor

- Supported by MELSECNET/10, (II)/B
- Since the line status of each MELSECNET is displayed clearly, the communication status can be easily checked.
- Details on lines and information about local and remote stations is provided from various points of view.
- This function can be disabled by setting a password.
- The A95□(W)GOT(-M3)(-H) displays a window screen.
- The MELSECNET/10H cannot use this feature.

Menu

MELSECNET/10 control station details

Off-line debugger

- A selected screen can be copied, moved, or deleted easily.
- Right-click menus are provided and several screens can be selected at the same time to implement comfortable operation.

**The simulation function shortens debugging time** (PLC free debugging function)  
When a personal computer is connected with a GOT, the computer can be used instead of the PLC to perform debugging without using the PLC. Debugging can be performed in advance in the design section.

Documentation assistance

**Fully supports documentation**

- Final documents can be created easily by printing them in a predefined format.
- Since screen display images can be output as BMP files and settings can be output as TEXT files, they can be read into a favorite word processor program to create documents and operation manuals.

BMP

TEXT

Bitmap data read

Beautiful high-quality screen displays can be created easily by reading 256-color bitmap (BMP) files.

CAD data read

Figures can be edited by reading machine drawings as DXF files using drawing software, thus eliminating duplicate drawing.

\*Compatible with the AutoCAD<sup>®</sup>L798 (Release 14) application.

Refer to GX Developer comment data

When a device name is specified, a comment on a device can be read and displayed from a comment file created with the GX Developer, so device address setting mistakes can be eliminated.



Graphic Operation Terminal  
900 series

Connection configuration

Various connection configurations increase your satisfaction!

GOT-A900 Large size



A985(V)



A975



A970

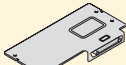


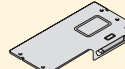
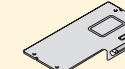



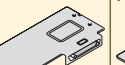
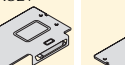







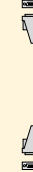
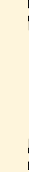
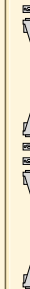





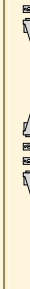


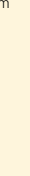
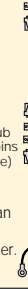










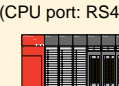




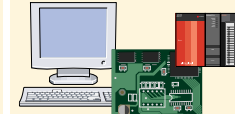



A960

Optional equipment

For connection of the following optional equipment, refer to the GOT-A900 Series User's Manual (Connection: SH-080114).  
•Printer, external I/O devices, PC card, video camera, personal computer

| Connection configuration                 | Bus connection  |   |  |   |   |   | Network connection  |  |   |  | CC-Link connection                                |   |  | Ethernet connection   |   |
|--|---|---|--|---|---|---|---|--|---|--|---|---|--|---|---|
|  | QCPU (Q mode)   |   | QnA/ACPU   |   | Motion controller (A series)  |   | MELSECNET/10  |  | MELSECNET(II)   |  | MELSECNET/B                                       |   | Via AJ65BT-G4-S3 (RS422 + CC-Link)                                 |   | Ethernet connection   |
|  | Bus connection unit<br>A9GT-QBUS2SU                       | Bus connection board<br>A9GT-QBUSS<br>A9GT-QBUS2S | Bus connection unit<br>A9GT-BUSSU<br>A9GT-BUS2SU   | Bus connection board<br>A9GT-BUSS<br>A9GT-BUS2S | Bus connection unit<br>A9GT-BUSSU<br>A9GT-BUS2SU  | Bus connection board<br>A9GT-BUSS<br>A9GT-BUS2S | Network unit<br>A7GT-J71LP23 (Optical)<br>A7GT-J71BR13 (Coaxial)                                      |  | Data link unit<br>A7GT-J71AP23 (Optical)<br>A7GT-J71AR23 (Coaxial)                                    |  | Data link unit<br>A7GT-J71AT23B (Twisted pair)    | CC-Link communication unit<br>A8GT-J61BT13 (Intelligent device station) | CC-Link communication unit<br>A8GT-J61BT15 (Remote device station) | Serial communication board (RS422)<br>A9GT-RS4  | Ethernet communication unit<br>A9GT-J71E71-T  |
|  |   |   |  |   |   |   |   |  |   |  |   |   |  |   |   |
|  | Bus connection cable<br>A9GT-QC□BS<br>QC□B                |   | Bus connection cable<br>A1SC□B<br>A1SC□NB<br>A8GT-C□BS<br>A8GT-C□EXSS(-1)<br>A8GT-C□NB<br>A9GT-J2C□B<br>AC□B<br>AC□B-R |   | Bus connection cable<br>A1SC□B<br>A370C□B<br>A370C□B-S1<br>A8GT-C□BS<br>A8GT-C□EXSS(-1)<br>A8GT-C□NB<br>A9GT-J2C□B<br>AC□B<br>AC□B-R  |   | Network cable<br>•Fiber-optic cable<br>SI cable<br>QSI cable<br>GI cable                              | •Coaxial cable<br>3C-2V cable<br>5C-2V cable | Data link cable<br>•Fiber-optic cable<br>SI cable<br>QSI cable<br>GI cable                            | •Coaxial cable<br>3C-2V cable<br>5C-2V cable | Data link cable<br>•Shielded twisted pair cable   | CC-Link dedicated cable<br>•Shielded 3-core twisted pair cable          |  | RS422 cable<br>AC□R4-25P<br>30:3m<br>100:10m<br>300:30m<br><br>Peripheral device connection unit for GPP function<br>AJ65BT-G4-S3<br><br>CC-Link dedicated cable<br>•Shielded 3-core twisted pair cable | 10BASE-T cable<br>•Twisted pair cable (UTP)   |
| Shape and model name of connection cable | Refer to Page 42 and later (Bus connection) for details.  |   |  |   |   |   |   |  |   |  |   |   |  |   |   |
| Connected to                             | QCPU (Q mode)   |   | QnA/ACPU   |   | Motion controller (A series)  |   | QCPU<br>QnA/ACPU<br>(Control station/normal station)  |  | QCPU<br>QnA/ACPU<br>(Master station)  |  | QCPU<br>QnA/ACPU<br>(Master station)              |   | QCPU<br>QnA/ACPU<br>(Master/local station)                         |   | QCPU<br>QnA/ACPU  |
|  |   |   |  |   |   |   |   |  |   |  |   |   |  |   |   |
| Maximum number of GOTs connected         | 5 units   |   | 3 units<br>(1 unit when connected with A0J2HCPU)   |   | 3 units (when connected with large size CPU)<br>2 units (when connected with small size CPU)  |   | 31 units (coaxial bus type)<br>63 units (optical loop type)   |  | 64 units (optical loop type)  |  | 32 units  |   | 26 units   |   | 1024 units (Q/QnA/ACPU). (Depends on the specifications of the Ethernet network system where the GOT is connected.) |
| Maximum connection distance              | 37m   |   | 36.6m (when connected with large size CPU)<br>36m (when connected with small size CPU)                                 |   | 36.6m (when connected with large size CPU: with expansion base)<br>32.5m (when connected with large size CPU: without expansion base)<br>33m (when connected with small size CPU) |   | 500m (coaxial, 500m between stations: 5C-2V cable)<br>30Km (optical, 1Km between stations: QSI cable) |  | 10km<br><br>(coaxial, 500m between stations: C-2V cable)<br>(optical, 1Km between stations: SI cable) |  | 200m (125Kbps, 1200m shielded twisted pair cable) |   | 1200m (156Kbps, shielded twisted pair cable)                       |   | 4Km (Q/QnA/ACPU)<br>(Depends on the specifications of the Ethernet network system where the GOT is connected.)      |
| Features                                 | Touch switches achieves response as quick as pushbuttons. |   |  |   |   |   | Multiple GOTs can be used as remote operation terminals.  |  |   |  | Multiple GOTs can be connected inexpensively.     |   |  |   | Remote operation achieves remote maintenance of production sites from your office.                                  |

| Connection configuration   | CPU direct connection  |  |  |  |  |   | Computer link connection  |   |   |   | Microcomputer connection   |   | Other manufacturer's PLC connection  |   |  |   |  |  |
|--|--|--|--|--|--|---|---|---|---|---|--|---|--|---|--|---|--|--|
|  | QCPU   |  | QnA/ACPU   | FXCPU(FX1, FX2, FX2c series)   |  | FXCPU(FX0, FX0N, FX0S, FX1N, FX1S, FX2N, FX2NC series: including the one with function expansion board)   |   | QCPU(Q mode)/QnACPU   |   | QCPU(A mode)/ACPU   |  | RS422   | RS232  | RS422   | RS232  |   |  |  |
| Communication interface installed on GOT side  | Serial communication board (RS422)<br>A9GT-RS4<br>  | Serial communication board (RS232)<br>A9GT-RS2<br>A9GT-RS2T<br> | Serial communication board (RS422)<br>A9GT-RS4<br>          | Serial communication board (RS422)<br>A9GT-RS4<br>          |  | Serial communication board (RS422)<br>A9GT-RS4<br>   |   | Serial communication board (RS232)<br>A9GT-RS2<br>A9GT-RS2T<br>  | Serial communication board (RS422)<br>A9GT-RS4<br>                                     | Serial communication board (RS232)<br>A9GT-RS2<br>A9GT-RS2T<br>  | Serial communication board (RS422)<br>A9GT-RS4<br>                    | Serial communication board (RS232)<br>A9GT-RS2<br>A9GT-RS2T<br>      | Serial communication board (RS422)<br>A9GT-RS4<br>                    | Serial communication board (RS232)<br>A9GT-RS2<br>A9GT-RS2T<br>      | Serial communication board (RS422)<br>A9GT-RS4<br>  | Serial communication board (RS232)<br>A9GT-RS2<br>A9GT-RS2T<br>      |  |  |
| Shape and model name of connection cable   | RS422 cable<br>AC□R4-25P<br>30:3m<br>100:10m<br>300:30m<br><br><br>RS232/422 conversion cable<br>FA-CN□CBL<br>2402:0.2m<br>2405:0.5m<br> | RS232 cable<br>QC□R2<br>30:3m<br>                               | RS422 cable<br>AC□R4-25P<br>30:3m<br>100:10m<br>300:30m<br> | RS422 cable<br>AC□R4-25P<br>30:3m<br>100:10m<br>300:30m<br> | RS422 cable<br>AC□R4-25P<br>30:3m<br>100:10m<br>300:30m<br><br><br>2-port interface unit<br>FX-2PIF<br><br><br>RS422 cable<br>FX-422CAB<br>0.3m<br> | RS422 cable<br>FX9GT-CAB0(-□)<br>150:1.5m<br>None:3m<br>10M:10m<br>  | RS422 cable<br>AC□R4-25P<br>30:3m<br>100:10m<br>300:30m<br><br><br>Cable adaptor<br>FX-422AW0<br>1.5m<br> | RS422 cable<br>AC□R4-25P<br>30:3m<br>100:10m<br>300:30m<br><br><br>2-port interface unit<br>FX-2PIF<br><br><br>RS422 cable<br>FX-422CAB0<br>1.5m<br> | RS232 cable (Can be fabricated by user)<br>AC□R2-9SS<br>30:3m<br>FX-232CAB-1<br>3m<br> | RS422 cable<br>AC□R4-25P<br>30:3m<br>100:10m<br>300:30m<br><br><br>D-sub 25 pins (male)<br><br><br>RS422 cable<br>Cable longer than 30m should be fabricated by user<br> | RS232 cable<br>To be fabricated by user.<br><br>D-sub 9 pins (female) | RS422 cable<br>To be fabricated by user.<br><br>D-sub 25 pins (male) | RS232 cable<br>To be fabricated by user.<br><br>D-sub 9 pins (female) | RS422 cable<br>To be fabricated by user.<br><br>D-sub 25 pins (male) | RS232 cable<br>To be fabricated by user.<br><br>D-sub 9 pins (female)   | RS422 cable<br>To be fabricated by user.<br><br>D-sub 25 pins (male) | RS232 cable<br>To be fabricated by user.<br><br>D-sub 9 pins (female) |  |
| For details of the cable to be fabricated, refer to the GOT-A900 Series User's Manual (Connection: SH-080114). |  |  |  |  |  |   |   |   |   |   |  |   |  |   |  |   |  |  |
| Connected to   | QCPU (CPU port: RS232)<br>  |  | QnA/ACPU (CPU port: RS422)<br>                              | FXCPU (CPU port: RS422) (FX1, FX2, FX2c series)<br>         |  | FXCPU (CPU port: RS422) (FX0, FX0N, FX0S, FX1N, FX1S, FX2N, FX2NC series : including those with function expansion boards)<br> |   |   | QCPU (Q mode)/QnACPU (Serial communication unit)<br>                                   |   | QCPU (A mode)/ACPU (Computer link unit)<br>                           |   | Personal computer, microcomputer board, PLC, etc.<br>                 |   | Compatible with the following other manufacturer's PLC CPUs (Refer to page 40 (Connectable model list) for details.)<br><br>•OMRON •SHARP<br>•YASKAWA •TOSHIBA<br>•HITACHI<br>•Rockwell Automation (Allen-Bradley)<br>•SIEMENS AG<br>•Matsushita Electric Works |   |  |  |
| Maximum number of GOTs connected   | 1 unit   | 1 unit   | 1 unit   | 1 unit   | 1 unit   | 1 unit (2 units: when function expansion board is used with FX1S/FX1N/FX2N/FX2NC series)  |   |   | 1 unit  |   | 1 unit   | 1 unit  | 1 unit   | 1 unit  | 1 unit   |   |  |  |
| Maximum connection distance  | 30.5m  | 3m   | 30m  | 30m  | 30.3m  | 10m   | 31.5m   |   |   | 15m   | 1200m:QCPU(Q mode)<br>200m:QnACPU  | 15m   | 1200m:QCPU(A mode)<br>200m:ACPU  | 15m   | Depending on the specifications of the host side (personal computer, microcomputer board, PLC or like)   |   | Depending on the specifications of the other manufacturer's PLC CPU.   |  |
| Features   | Can be connected with MELSEC-Q/QnA/FX series at the lowest cost.   |  |  |  |  |   |   |   | Multiple GOTs can be connected easily through serial communication (with computer link units on one-to-one basis).  |   |  |   | Can be connected with microcomputer board or personal computer freely.   |   |  |   | Can be connected with other manufacturer's PLC CPU for monitoring.   |  |

Others



Graphic Operation Terminal

900

series

Connection configuration

Various connection configurations increase your satisfaction!

GOT-A900


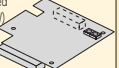
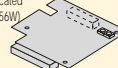
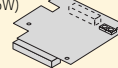
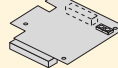
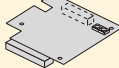
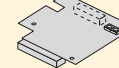
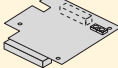
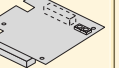
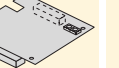
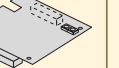
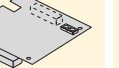
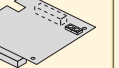
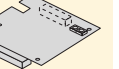






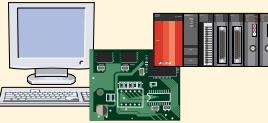

Medium size



Optional equipment

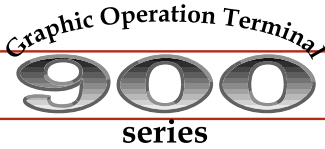
For connection of the following optional equipment, refer to the GOT-A900 Series User's Manual (Connection: SH-080114).  
•Printer, external I/O devices, PC card, video camera, personal computer

| Connection configuration                      | Bus connection  |  |   | Network connection   |  |   | CC-Link connection  |  | Ethernet connection   |   |
|---|---|--|---|--|--|---|---|--|---|---|
|   | A956W<br>A951-Q   | A956W<br>A951  | A956W<br>A951   | A956W<br>A956  | A956W<br>A956  | A956W<br>A956   | A956W<br>A956   | A956W<br>A950  | A956W<br>A956   | A956W<br>A956   |
| Communication interface installed on GOT side | QCPU (Q mode)<br>Bus connection unit<br>A9GT-QBUS2SU<br>Bus connection board<br>A9GT-50WQBUS (dedicated to A956W) | QnA/ACPU<br>Bus connection unit<br>A9GT-BUSSU<br>Bus connection board<br>A9GT-50WBUS (dedicated to A956W)              | Motion controller (A series)<br>Bus connection unit<br>A9GT-BUSSU<br>Bus connection board<br>A9GT-50WBUS (dedicated to A956W)   | MELSECNET/10<br>Network unit<br>A7GT-J71LP23 (Optical)<br>A7GT-J71BR13 (Coaxial)   | MELSECNET(II)<br>Data link unit<br>A7GT-J71AP23 (Optical)<br>A7GT-J71AR23 (Coaxial)  | MELSECNET/B<br>Data link unit<br>A7GT-J71AT23B (Twisted pair) | CC-Link communication unit<br>A8GT-J61BT13 (Intelligent device station) | CC-Link communication unit<br>A8GT-J61BT15 (Remote device station)   | Serial communication board (RS422)<br>A9GT-50WRS4                           | Ethernet communication unit<br>A9GT-J71E71-T  |
| Shape and model name of connection cable      | Bus connection cable<br>A9GT-QC□BS<br>QC□B  | Bus connection cable<br>A1SC□B<br>A1SC□NB<br>A8GT-C□BS<br>A8GT-C□EXSS(-1)<br>A8GT-C□NB<br>A9GT-J2C□B<br>AC□B<br>AC□B-R | Bus connection cable<br>A1SC□B<br>A370C□B<br>A370C□B-S1<br>A8GT-C□BS<br>A8GT-C□EXSS(-1)<br>A8GT-C□NB<br>AC□B<br>AC□B-R  | Network cable<br>•Fiber-optic cable<br>SI cable<br>QSI cable<br>GI cable<br>•Coaxial cable<br>3C-2V cable<br>5C-2V cable | Data link cable<br>•Fiber-optic cable<br>SI cable<br>QSI cable<br>GI cable<br>•Coaxial cable<br>3C-2V cable<br>5C-2V cable | Data link cable<br>•Shielded twisted pair cable               | CC-Link dedicated cable<br>•Shielded 3-core twisted pair cable          | RS422 cable<br>AC□R4-25P<br>30:3m<br>100:10m<br>300:30m<br>Peripheral device connection nit for GPP function<br>AJ65BT-G4-S3<br>CC-Link dedicated cable<br>•Shielded 3-core twisted pair cable | 10BASE-T cable<br>•Twisted pair cable (UTP)                                 |   |
| Connected to                                  | QCPU (Q mode)   | QnA/ACPU   | Motion controller (A series)  | QCPU<br>QnA/ACPU<br>(Control station/normal station)   | QCPU<br>QnA/ACPU<br>(Master station)   | QCPU<br>QnA/ACPU<br>(Master station)                          | QCPU<br>QnA/ACPU<br>(Master/local station)                              | QCPU<br>QnA/ACPU<br>(Master/local station)   | QCPU<br>QnA/ACPU  | Ethernet unit   |
| Maximum number of GOTs connected              | 5 units   | 3 units<br>(1 unit when connected with AOJ2HCPU)   | 3 units (when connected with large size CPU)<br>2 units (when connected with small size CPU)  | 31 units (coaxial bus type)<br>63 units (optical loop type)  | 64 units (optical loop type)   | 32 units  | 26 units  | 32 units   | 1 units   | 1024 units (Q/QnA/ACPU). (Depends on the specifications of the Ethernet network system where the GOT is connected.) |
| Maximum connection distance                   | 37m   | 36.6m (when connected with large size CPU)<br>36m (when connected with small size CPU)                                 | 36.6m (when connected with large size CPU: with expansion base)<br>32.5m (when connected with large size CPU: without expansion base)<br>33m (when connected with small size CPU) | 500m (coaxial, 500m between stations: 5C-2V cable)<br>30Km (optical, 1Km between stations: QSI cable)                    | 10km (coaxial, 500m between stations: □C-2V cable)<br>(optical, 1Km between stations: SI cable)                            | 200m (125Kbps, 1200m shielded twisted pair cable)             | 1200m (156Kbps, shielded twisted pair cable)                            | 1200m (156Kbps, shielded twisted pair cable)   | 1230m (1200m: 156Kbps, shielded twisted pair cable, 30m: AC300R4-25P cable) | 4Km (Q/QnA/ACPU)<br>(Depends on the specifications of the Ethernet network system where the GOT is connected.)      |
| Features                                      | Touch switches achieves response as quick as pushbuttons.   |  |   | Multiple GOTs can be used as remote operation terminals.   |  |   | Multiple GOTs can be connected inexpensively.                           |  |   | Remote operation achieves remote maintenance of production sites from your office.                                  |

| Connection configuration                      | CPU direct connection  |  |  |  |  |   | Computer link connection   |  |  |   |   |   | Microcomputer connection   |  | Other manufacturer's PLC connection  |   |  |  |  |  |
|---|--|--|--|--|--|---|--|--|--|---|---|---|--|--|--|---|--|--|--|--|
|   | A956W<br>A950  | A956W<br>A953  | A956W<br>A950  | A956W<br>A950  | A956W<br>A950  | A956W<br>A953   | A956W<br>A950  | A956W<br>A953  | A956W<br>A950  | A956W<br>A953   | A956W<br>A950   | A956W<br>A953   | A956W<br>A950  | A956W<br>A953  | A956W<br>A950  | A956W<br>A953   |  |  |  |  |
| Communication interface installed on GOT side | Serial communication board (RS422)<br>A9GT-50WRS4<br>(dedicated to A956W)<br> | Serial communication board (RS232)<br>A9GT-50WRS2<br>(dedicated to A956W)<br> | Serial communication board (RS422)<br>A9GT-50WRS4<br>(dedicated to A956W)<br> | Serial communication board (RS422)<br>A9GT-50WRS4<br>(dedicated to A956W)<br> | Serial communication board (RS422)<br>A9GT-50WRS4<br>(dedicated to A956W)<br>   |   | Serial communication board (RS232)<br>A9GT-50WRS2<br>(dedicated to A956W)<br> |  |  |   |   |   | Serial communication board (RS422)<br>A9GT-50WRS4<br>(dedicated to A956W)<br> | Serial communication board (RS232)<br>A9GT-50WRS2<br>(dedicated to A956W)<br> | Serial communication board (RS422)<br>A9GT-50WRS4<br>(dedicated to A956W)<br> | Serial communication board (RS232)<br>A9GT-50WRS2<br>(dedicated to A956W)<br>  | Serial communication board (RS422)<br>A9GT-50WRS4<br>(dedicated to A956W)<br> | Serial communication board (RS232)<br>A9GT-50WRS2<br>(dedicated to A956W)<br> | Serial communication board (RS422)<br>A9GT-50WRS4<br>(dedicated to A956W)<br> | Serial communication board (RS232)<br>A9GT-50WRS2<br>(dedicated to A956W)<br> |
| Shape and model name of connection cable      | A950/A953 contains communication interface.  |  |  |  |  |   | A950/A953 contains communication interface.  |  |  |   |   |   | A950/A953 contains communication interface.  |  | A950/A953 contains communication interface.  |   | A950/A953 contains communication interface.  |  |  |  |
|   | RS422 cable<br>AC□R4-25P<br>30:3m<br>100:10m<br>300:30m<br><br>RS232/422 conversion cable<br>FA-CN□CBL<br>2402:0.2m<br>2405:0.5m                                 | RS232 cable<br>QC□R2<br>30:3m  | RS422 cable<br>AC□R4-25P<br>30:3m<br>100:10m<br>300:30m  | RS422 cable<br>AC□R4-25P<br>30:3m<br>100:10m<br>300:30m  | RS422 cable<br>AC□R4-25P<br>30:3m<br>100:10m<br>300:30m<br><br>2-port interface unit<br>FX-2PIF<br><br>RS422 cable<br>FX-422CAB<br>0.3m  | RS422 cable<br>FX9GT-CAB0(-□)<br>150:1.5m<br>None:3m<br>10M:10m                             | RS422 cable<br>AC□R4-25P<br>30:3m<br>100:10m<br>300:30m<br><br>Cable adaptor<br>FX-422AW0<br>1.5m  | RS422 cable<br>AC□R4-25P<br>30:3m<br>100:10m<br>300:30m<br><br>2-port interface unit<br>FX-2PIF<br><br>RS422 cable<br>FX-422CAB0<br>1.5m | RS232 cable (Can be fabricated by user)<br>AC□R2-9SS<br>30:3m<br>FX-232CAB-1<br>3m | RS422 cable<br>AC□R4-25P<br>30:3m<br>100:10m<br>300:30m<br><br>D-sub 25 pins (male)<br><br>RS422 cable<br>Cable longer than 30m should be fabricated by user. | RS232 cable<br>To be fabricated by user.<br>D-sub 9 pins (female) | RS422 cable<br>To be fabricated by user.<br>D-sub 25 pins (male)  | RS232 cable<br>To be fabricated by user.<br>D-sub 9 pins (female)  | RS422 cable<br>To be fabricated by user.<br>D-sub 25 pins (male)<br><br>Depending on connection target specifications  | RS232 cable<br>To be fabricated by user.<br>D-sub 9 pins (female)<br><br>Depending on connection target specifications   | RS422 cable<br>To be fabricated by user.<br>D-sub 25 pins (male)<br><br>Depending on connection target specifications   | RS232 cable<br>To be fabricated by user.<br>D-sub 9 pins (female)<br><br>Depending on connection target specifications   |  |  |  |
|   | For details of the cable to be fabricated, refer to the GOT-A900 Series User's Manual (Connection: SH-080114).   |  |  |  |  |   |  |  |  |   |   |   |  |  |  |   |  |  |  |  |
| Connected to                                  | QCPU (CPU port: RS232)<br>  |  | QnA/ACPU (CPU port: RS422)<br>  | FXCPU (CPU port: RS422)<br>(FX1, FX2, FX2c series)<br>                        | FXCPU (CPU port: RS422)<br>(FX0, FX0N, FX0S, FX1N, FX1S, FX2N, FX2NC series : including those with function expansion boards)<br> |   |  |  |  | QCPU (Q mode)/QnACPU<br>(Serial communication unit)<br>                  |   | QCPU (A mode)/ACPU<br>(Computer link unit)<br> |  | Personal computer, microcomputer board, PLC, etc.<br>                         |  | Compatible with the following other manufacturer's PLC CPUs<br>(Refer to page 40 (Connectable model list) for details.)<br>•OMRON •SHARP<br>•YASKAWA •TOSHIBA<br>•HITACHI<br>•Rockwell Automation (Allen-Bradley)<br>•SIEMENS AG<br>•Matsushita Electric Works<br> |  |  |  |  |
| Maximum number of GOTs connected              | 1 unit   | 1 unit   | 1 unit   | 1 unit   | 1 unit   | 1 unit<br>(2 units: when function expansion board is used with FX1S/FX1N/FX2N/FX2NC series) |  |  |  |   | 1 unit  | 1 unit  | 1 unit   | 1 unit   | 1 unit   | 1 unit  | 1 unit   |  |  |  |
| Maximum connection distance                   | 30.5m  | 3m   | 30m  | 30m  | 30.3m<br>(When 2-port interface unit is used)  | 10m   | 31.5m  | 15m  |  |   | 1200m:QCPU (Q mode)<br>200m:QnACPU                                | 15m   | 1200m:QCPU (A mode)<br>200m:ACPU   | 15m  | Depending on the specifications of the host side (personal computer, microcomputer board, PLC or like)   |   | Depending on the specifications of the other manufacturer's PLC CPU.   |  |  |  |
| Features                                      | Can be connected with MELSEC-Q/QnA/FX series at the lowest cost.   |  |  |  |  |   | Multiple GOTs can be connected easily through serial communication (with computer link units on one-to-one basis).   |  |  |   |   |   | Can be connected with microcomputer board or personal computer freely.   |  | Can be connected with other manufacturer's PLC CPU for monitoring.   |   |  |  |  |  |

Others





Connectable mode list

\*Covers the GOT-A900 series except GT SoftGOT.

Mitsubishi PLCs/motion controllers

○:Available    ✕:Unavailable

| Connectable CPU                   |                        |                      |  | Bus connection | MELSECNET connection | CC-Link connection | Computer link connection | CPU direct connection | Ethernet connection |   |   |   |   |   |
|-----------------------------------|------------------------|----------------------|--|----------------|----------------------|--------------------|--------------------------|-----------------------|---------------------|---|---|---|---|---|
| QCPU (Q mode)                     | Basic model            | Q00JCPU              |  | ○              | ○                    | ○                  | ○                        | ○                     | ○                   |   |   |   |   |   |
|                                   |                        | Q00CPU               |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | Q01CPU               |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   | High Performance model | Q02CPU               | Use the function version B or later in a multiple PLC configuration.   | ○              | ○                    | ○                  | ○                        | ○                     | ○                   |   |   |   |   |   |
|                                   |                        | Q02HCPU              |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | Q06HCPU              |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | Q12HCPU              |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   | Q25HCPU                |                      |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
| Motion controller (Q series)      |                        | Q172CPU              | The QCPU (Q mode) is required separately. (Multiple PLC configuration)                                       | ○              | ×                    | ×                  | ×                        | ○                     | ×                   |   |   |   |   |   |
|                                   | Q173CPU                |                      |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
| MELSEC-Q series (A mode)          |                        | Q02CPU-A             |  | ×              | ○                    | ○                  | ○                        | ○                     | ○                   |   |   |   |   |   |
|                                   |                        | Q02HCPU-A            |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | Q06HCPU-A            |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
| QnA/ACPU *1*2 [Large size CPU]    |                        | QnACPU(S1)           |  | ○ *3           | ○                    | ○                  | ○                        | ○                     | ○                   |   |   |   |   |   |
|                                   |                        | Q4ARCPU              | As the last expansion base in the system, use the hardware version B or later of the 68RB.                   |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | AnUCPU(S1)           |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | AnACPU(S1)           |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | AnNCPU(S1)           | For the AnN(S1) with link, use the version L or later. For the one without link, use the version H or later. |                |                      |                    |                          |                       |                     |   |   |   |   |   |
| QnAS/AnSCPU *1*2 [Small size CPU] |                        | Q2ASCPU(S1)          |  | ○ *3           | ○                    | ○                  | ○                        | ○                     | ○                   |   |   |   |   |   |
|                                   |                        | Q2ASHCPU(S1)         |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | A2USCPU(S1)          |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | A2USHCPU-S1          |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | A1SHCPU              |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | A2SHCPU              |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | A1SCPU               |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | A2SCPU               | Use the version H or later.  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | A1SCPUC24-R2         |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | A1SJCPU(S3)          |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | A1SJHCPU             |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | A0J2HCPU             | Use the version E or later.  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | A2CCPU               | Use the version H or later.  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | A2CCPUC24            |  |                |                      |                    |                          |                       |                     | × | × | × | × | × |
|                                   |                        | A2CJCPU              |  |                |                      |                    |                          |                       |                     | × | × | × | × | × |
| A1FXCPU                           |                        | ×                    | ×  | ×              | ×                    | ×                  |                          |                       |                     |   |   |   |   |   |
| Motion controller (A series)      |                        | A373UCPU             |  | ○ *3           | ○                    | ○                  | ○                        | ○                     | ○                   |   |   |   |   |   |
|                                   |                        | A373UCPU-S3          |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | A273UCPU             |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | A273UHCPU            |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | A173UHCPU            |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | A172SHCPU            |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | A171SHCPU            |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   | A171SCPU(S3)           |                      |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
| FXCPU                             |                        | FX0i/FX0s/FX0N       |  | —              | —                    | —                  | —                        | ○                     | —                   |   |   |   |   |   |
|                                   |                        | FX1i/FX1s/FX1N/FX1NC |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        | FX2i/FX2C/FX2N/FX2NC |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |
|                                   |                        |                      |  |                |                      |                    |                          |                       |                     |   |   |   |   |   |

Computer link units/serial communication units that can be used for connection with Mitsubishi computer link

|               | RS-422           | RS-232C                 |
|---------------|------------------|-------------------------|
| QCPU (Q mode) | QJ71C24          | QJ71C24(-R2)<br>QJ71CMO |
| QCPU (A mode) | A1SJ71UC24-R4    | AJ71UC24(-R2)           |
|               | A1SJ71C24-R4     | A1SJ71UC24(-R2)         |
| QnA/QnASCPU   | AJ71QC24(-R4)    | AJ71QC24(-R2)           |
|               | AJ71QC24N(-R4)   | A1SJ71QC24(-R2)         |
|               | A1SJ71QC24       | A1SJ71UC24-R2 *6        |
|               | A1SJ71UC24-R4 *6 | AJ71UC24                |
|               | AJ71C24-S8       | A1SJ71C24-R2            |
| A/AnSCPU      | AJ71UC24         | A1SJ71UC24-R2           |
|               | A1SJ71UC24-R4    | A1SCPUC24-R2            |
|               | A1SJ71C24-R      | A2CCPUC24               |
|               |                  |                         |

Units that can be used for connection with the other manufacturer's computer link

|  | RS-422                        | RS-232C                                      |
|--|-------------------------------|--|
| OMRON<br>Upper-level link unit/<br>communication board | C-500-LK201-V1                | C500-LK201-V1                                |
|  | C200HW-COM03                  | C200HW-COM02                                 |
|  | C200HW-COM06                  | C200HW-COM05                                 |
|  | C200H-LK201-V1                | C200HW-COM06                                 |
|  | C120-LK201-V1                 | C200H-LK202-V1                               |
|  | C120-LK202-V1                 | C120-LK201-V1                                |
|  | C120-LK202-V1                 | C120-LK202-V1                                |
| SHARP<br>Link unit                                     | JW-21CM<br>JW-10CM<br>ZW-10CM | —  |
| YASKAWA Electric<br>Memory bus unit                    | JAMSC-IF612<br>120 NOM 271 00 | JAMSC-IF60<br>JAMSC-LF61<br>120 CPU 341 00   |
| YASKAWA Electric<br>Matsushita<br>Electric Works PLC   | —                             | CP-217IF *4<br>AFP2462<br>AFP3462<br>AFP5462 |

Other manufacturers' PLCs/motion controllers

○:Available    ✕:Unavailable

| Connectable CPU                            |   | Computer link connection                |         | CPU direct connection                   |         |
|--|---|---|---------|---|---------|
|  |   | RS-422                                  | RS-232C | RS-422                                  | RS-232C |
| OMRON PLC                                  | C200HS                                  | ○<br>RS-422 or RS-232C can be selected. |         | ×                                       | ×       |
|  | C200H                                   |   |         |   |         |
|  | C200HX                                  |   |         |   |         |
|  | C200HG                                  |   |         | ×                                       | ○       |
|  | C200HE                                  |   |         |   |         |
|  | CQM1                                    |   |         |   |         |
|  | C1000H                                  |   |         | ○<br>RS-422 or RS-232C can be selected. | ×       |
|  | C2000H                                  |   |         |   |         |
|  | CV500                                   |   |         |   |         |
|  | CV1000                                  |   |         |   |         |
|  | CV2000                                  |   |         |   |         |
|  | CVM1                                    |   |         |   |         |
| CS1  | ×                                       | ○                                       | ×       |   |         |
| CJ1  | ○<br>RS-422 or RS-232C can be selected. |   | ×       | ○                                       |         |
| SHARP PLC                                  | JW-21CU                                 | ○                                       | ×       | ○<br>RS-422 or RS-232C can be selected. |         |
|  | JW-31CUH                                |   |         |   |         |
|  | JW-50CUH                                |   |         |   |         |
|  | JW-22CU                                 |   |         |   |         |
|  | JW-32CUH                                |   |         |   |         |
|  | JW-33CUH                                |   |         |   |         |
|  | JW-70CUH                                |   |         |   |         |
|  | JW-100CUH                               |   |         |   |         |
| YASKAWA Electric PLC                       | GL60S                                   | ○<br>RS-422 or RS-232C can be selected. |         | ×                                       | ×       |
|  | GL60H                                   |   |         |   |         |
|  | GL70H                                   |   |         |   |         |
|  | GL120                                   |   |         |   |         |
|  | GL130                                   |   |         |   |         |
| YASKAWA Electric motion controller         | CP-9200SH                               | ×                                       | ×       | ×                                       | ○       |
|  | CP-9300MS                               | ×                                       | ×       | ×                                       | ○       |
|  | MP-920/930                              |   |         |   |         |
|  | MP-940                                  |   |         |   |         |
|  | PROGIC-8                                |   |         |   |         |
| CP-9200(H)                                 | ×                                       | ×                                       | ×       | ○                                       |         |
| TOSHIBA PLC                                | T2                                      | ×                                       | ×       | ○<br>RS-422 or RS-232C can be selected. |         |
|  | T3                                      | ×                                       | ×       | ○<br>RS-422 or RS-232C can be selected. |         |
|  | T3H                                     |   |         |   |         |
|  | PROSEC T series<br>PROSEC V series      |   |         | ×                                       | ×       |
| Matsushita Electric Works PLC              | FPO-C16CT                               | ×                                       | ×       | ×                                       | ○       |
|  | FPO-C32CT                               | ×                                       | ×       | ×                                       | ○ *8    |
|  | FP1-C24C                                |   |         |   |         |
|  | FP1-C40C                                |   |         |   |         |
|  | FP2                                     | ×                                       | ○       | ×                                       | ○       |
|  | FP3                                     |   |         |   |         |
|  | FP5                                     |   |         |   |         |
|  | FP10(S)                                 |   |         |   |         |
|  | FP10SH                                  | ×                                       | ○       | ×                                       | ○       |
| FP-M(C20TC)                                | ×                                       | ×                                       | ×       | ○                                       |         |
| FP-M(C32TC)                                |   |   |         |   |         |
| HITACHI PLC                                | Large size H series                     | ○<br>RS-422 or RS-232C can be selected. |         | ×                                       | ○       |
|  | H200 to 252 series                      | ×                                       | ×       | ×                                       | ○       |
|  | H series board type                     |   |         |   |         |
|  | EH-150 series                           |   |         |   |         |
| Rockwell Automation PLC (Allen-Bradley) *7 | SLC500 series                           | ×                                       | ×       | ×                                       | ○       |
|  | MicroLogix1000 series                   |   |         |   |         |
|  | MicroLogix1500 series                   |   |         |   |         |
| SIEMENS AG PLC                             | S7-300 series                           | ×                                       | ×       | ×                                       | ○ *5    |
|  | S7-400 series                           |   |         |   |         |

Notes: •For information on CPUs that can be connected when a CC-Link is connected, see the manual.  
•When an expansion base unit is used with the A1SJCPU or A1SJHCPU, GOT bus connection is not possible.  
\*1: Data cannot be written to the CPUs of versions earlier than the one shown in parentheses.  
\*2: If a Q4ARCPU is connected, use an expansion base A68RB of hardware version B or later at the last stage of the system. It cannot be connected to a main base A3□RB.  
\*3: When a bus is connected, current consumption must be calculated assuming that the maximum current supplied to the GOT from the PLC power supply is 220 mA.  
The supply current capacity of the PLC power supply must not be exceeded.  
\*4: CP-217IF is required to when CP200SH or MP-920 is connected with the GOT.  
\*5: An HMI adapter is necessary to connect the GOT.  
\*6: Works with AnACPU devices. (R device cannot be used.)  
\*7: It can be connected to each CPU on the DH485 network consisting of SLC500 series or MicroLogix1000/1500 series. See the manual for more information.  
\*8: To connect to the TOOL port, an adaptor (AFP8550) is required between the FP peripheral device connection cable and RS-232C cable.



Graphic Operation Terminal

900

series

Bus connection

When connected with QCPU (Q mode)

Up to 5 GOTs can be connected.

\*1: When expansion base units are used, the extension cable length (between the base units) is also included.

\*2: The bus extension connector box (A9GT-QCNB) is a unit designed to increase the distance between the base unit and GOT. Use it by fitting only one box to the expansion connector of the main or expansion base unit.

\*3: Cable model name (example) QC□B 06: 0.6m, i.e. Model name: QC06B

\*4: No communication interface is required.

| GOT connection conditions                            |                 | System configuration |  | Component details           |  |               |              |                         |            |                         |                          |                   |                         |                         |                       |                        |              |                         |            |              |
|--|-----------------|----------------------|--|-----------------------------|--|---------------|--------------|-------------------------|------------|-------------------------|--------------------------|-------------------|-------------------------|-------------------------|-----------------------|------------------------|--------------|-------------------------|------------|--------------|
|  |                 |                      |  | Bus extension connector box | Cable 1 <sup>*3</sup>  | GOT1          |              |                         |            | Cable 2 <sup>*3</sup>   | Middle GOT(GOT2 to GOT4) |                   |                         |                         | Cable 3 <sup>*3</sup> | Last GOT(GOT2 to GOT5) |              |                         |            |              |
|  |                 |                      |  |                             |  | GOT main unit |              | Communication interface |            |                         | GOT main unit            |                   | Communication interface |                         |                       | GOT main unit          |              | Communication interface |            |              |
| Connection distance                                  |                 | 0m                   |  | 13.2m                       |  | 37m           |              | GOT main unit           |            | Communication interface |                          | GOT main unit     |                         | Communication interface |                       | GOT main unit          |              | Communication interface |            |              |
| Number of GOTs   Installation distance of first unit |                 |                      |  |                             |  |               |              | Size   Model name       |            | Board type   Unit type  |                          | Size   Model name |                         | Board type   Unit type  |                       | Size   Model name      |              | Board type   Unit type  |            |              |
| 1 unit   | Within 13.2m    |                      |  |                             | QC□B<br>06 : 0.6m<br>12 : 1.2m<br>30 : 3m<br>50 : 5m<br>100 : 10m          |               | 12" A985(-V) |                         | A9GT-QBUSS | A9GT-QBUS2SU            |                          | 12" A985(-V)      |                         | A9GT-QBUS2S             | A9GT-QBUS2SU          |                        | 12" A985(-V) |                         | A9GT-QBUSS | A9GT-QBUS2SU |
|  |                 | 10" A97□             |  |                             |  |               | A9GT-QBUSS   | A9GT-QBUS2SU            | 10" A97□   |                         |                          | A9GT-QBUS2S       | A9GT-QBUS2SU            | 10" A97□                |                       |                        | A9GT-QBUS2S  | A9GT-QBUS2SU            |            |              |
|  |                 | 9" A960              |  |                             |  |               | A9GT-QBUSS   | A9GT-QBUS2SU            | 9" A960    |                         |                          | A9GT-QBUS2S       | A9GT-QBUS2SU            | 9" A960                 |                       |                        | A9GT-QBUS2S  | A9GT-QBUS2SU            |            |              |
|  |                 | 7" A956W             |  |                             |  |               | A9GT-QBUSS   | A9GT-QBUS2SU            | 7" A956W   |                         |                          | A9GT-QBUS2S       | A9GT-QBUS2SU            | 7" A956W                |                       |                        | A9GT-QBUS2S  | A9GT-QBUS2SU            |            |              |
|  |                 | 6" A956              |  |                             |  |               | A9GT-QBUSS   | A9GT-QBUS2SU            | 6" A956    |                         |                          | A9GT-QBUS2S       | A9GT-QBUS2SU            | 6" A956                 |                       |                        | A9GT-QBUS2S  | A9GT-QBUS2SU            |            |              |
| 1 unit   | More than 13.2m |                      |  |                             | A9GT-QCNB<br>150 : 15m<br>200 : 20m<br>250 : 25m<br>300 : 30m<br>350 : 35m |               | 12" A985(-V) |                         | A9GT-QBUSS | A9GT-QBUS2SU            |                          | 12" A985(-V)      |                         | A9GT-QBUS2S             | A9GT-QBUS2SU          |                        | 12" A985(-V) |                         | A9GT-QBUSS | A9GT-QBUS2SU |
|  |                 | 10" A97□             |  |                             |  |               | A9GT-QBUSS   | A9GT-QBUS2SU            | 10" A97□   |                         |                          | A9GT-QBUS2S       | A9GT-QBUS2SU            | 10" A97□                |                       |                        | A9GT-QBUS2S  | A9GT-QBUS2SU            |            |              |
|  |                 | 9" A960              |  |                             |  |               | A9GT-QBUSS   | A9GT-QBUS2SU            | 9" A960    |                         |                          | A9GT-QBUS2S       | A9GT-QBUS2SU            | 9" A960                 |                       |                        | A9GT-QBUS2S  | A9GT-QBUS2SU            |            |              |
|  |                 | 7" A956W             |  |                             |  |               | A9GT-QBUSS   | A9GT-QBUS2SU            | 7" A956W   |                         |                          | A9GT-QBUS2S       | A9GT-QBUS2SU            | 7" A956W                |                       |                        | A9GT-QBUS2S  | A9GT-QBUS2SU            |            |              |
|  |                 | 6" A956              |  |                             |  |               | A9GT-QBUSS   | A9GT-QBUS2SU            | 6" A956    |                         |                          | A9GT-QBUS2S       | A9GT-QBUS2SU            | 6" A956                 |                       |                        | A9GT-QBUS2S  | A9GT-QBUS2SU            |            |              |
| 2 to 5 units   | Within 13.2m    |                      |  |                             | QC□B<br>06 : 0.6m<br>12 : 1.2m<br>30 : 3m<br>50 : 5m<br>100 : 10m          |               | 12" A985(-V) |                         | A9GT-QBUSS | A9GT-QBUS2SU            |                          | 12" A985(-V)      |                         | A9GT-QBUS2S             | A9GT-QBUS2SU          |                        | 12" A985(-V) |                         | A9GT-QBUSS | A9GT-QBUS2SU |
|  |                 | 10" A97□             |  |                             |  |               | A9GT-QBUSS   | A9GT-QBUS2SU            | 10" A97□   |                         |                          | A9GT-QBUS2S       | A9GT-QBUS2SU            | 10" A97□                |                       |                        | A9GT-QBUS2S  | A9GT-QBUS2SU            |            |              |
|  |                 | 9" A960              |  |                             |  |               | A9GT-QBUSS   | A9GT-QBUS2SU            | 9" A960    |                         |                          | A9GT-QBUS2S       | A9GT-QBUS2SU            | 9" A960                 |                       |                        | A9GT-QBUS2S  | A9GT-QBUS2SU            |            |              |
|  |                 | 7" A956W             |  |                             |  |               | A9GT-QBUSS   | A9GT-QBUS2SU            | 7" A956W   |                         |                          | A9GT-QBUS2S       | A9GT-QBUS2SU            | 7" A956W                |                       |                        | A9GT-QBUS2S  | A9GT-QBUS2SU            |            |              |
|  |                 | 6" A956              |  |                             |  |               | A9GT-QBUSS   | A9GT-QBUS2SU            | 6" A956    |                         |                          | A9GT-QBUS2S       | A9GT-QBUS2SU            | 6" A956                 |                       |                        | A9GT-QBUS2S  | A9GT-QBUS2SU            |            |              |
|  | More than 13.2m |                      |  |                             | A9GT-QCNB<br>150 : 15m<br>200 : 20m<br>250 : 25m<br>300 : 30m<br>350 : 35m |               | 12" A985(-V) |                         | A9GT-QBUSS | A9GT-QBUS2SU            |                          | 12" A985(-V)      |                         | A9GT-QBUS2S             | A9GT-QBUS2SU          |                        | 12" A985(-V) |                         | A9GT-QBUSS | A9GT-QBUS2SU |
|  |                 | 10" A97□             |  |                             |  |               | A9GT-QBUSS   | A9GT-QBUS2SU            | 10" A97□   |                         |                          | A9GT-QBUS2S       | A9GT-QBUS2SU            | 10" A97□                |                       |                        | A9GT-QBUS2S  | A9GT-QBUS2SU            |            |              |
|  |                 | 9" A960              |  |                             |  |               | A9GT-QBUSS   | A9GT-QBUS2SU            | 9" A960    |                         |                          | A9GT-QBUS2S       | A9GT-QBUS2SU            | 9" A960                 |                       |                        | A9GT-QBUS2S  | A9GT-QBUS2SU            |            |              |
|  |                 | 7" A956W             |  |                             |  |               | A9GT-QBUSS   | A9GT-QBUS2SU            | 7" A956W   |                         |                          | A9GT-QBUS2S       | A9GT-QBUS2SU            | 7" A956W                |                       |                        | A9GT-QBUS2S  | A9GT-QBUS2SU            |            |              |
|  |                 | 6" A956              |  |                             |  |               | A9GT-QBUSS   | A9GT-QBUS2SU            | 6" A956    |                         |                          | A9GT-QBUS2S       | A9GT-QBUS2SU            | 6" A956                 |                       |                        | A9GT-QBUS2S  | A9GT-QBUS2SU            |            |              |



Graphic Operation Terminal

900

series

Bus connection

When connected with QnASCPU (small type) or AnSCPU (small type)

Up to 3 GOTs can be connected.

\*1: When expansion base units are used, the overall cable distance should be within 36m.

\*2: Cable model name (example) A1SC□B 07: 0.7m, i.e. Model name: A1SC07B

\*3: No communication interface is required.

\*4: Use the value of the A8GT-C□EXSS to calculate the cable length of the A8GT-C□EXSS-1.

| GOT connection conditions   |              | System configuration |    |     |     | Component details                                       |          |   |   |   |                           |  |   |   |                           |  |  |            |                         |  |  |                         |                           |                           |                         |  |
|---|--------------|----------------------|----|-----|-----|---|----------|---|---|---|---------------------------|--|---|---|---------------------------|--|--|------------|-------------------------|--|--|-------------------------|---------------------------|---------------------------|-------------------------|--|
|   |              |                      |    |     |     | Cable 0 <sup>*2</sup>                                   |          | Bus connector conversion box  | Cable 1 <sup>*2</sup>   |   | GOT1                      |  |   |   | Cable 2 <sup>*2</sup>     |  | GOT2   |            |                         |  | Cable 3 <sup>*2</sup>  |                         | GOT3                      |                           |                         |  |
|   |              |                      |    |     |     |   |          |   |   |   | GOT main unit             |  | Communication interface   |   |                           |  | GOT main unit  |            | Communication interface |  |  |                         | GOT main unit             |                           | Communication interface |  |
| Connection distance<br>Number of GOTs   Installation distance of first unit |              | 0m                   | 5m | 30m | 35m |   |          |   |   | Size                                    | Model name                | Board type   | Unit type   |   | Size                      | Model name   | Board type   | Unit type  |                         | Size   | Model name   | Board type              | Unit type                 |                           |                         |  |
| 1 unit  | Within 30m   |                      |    |     |     |   |          | A1SC□B<br>07 : 0.7m<br>12 : 1.2m<br>30 : 3m<br>50 : 5m<br>A8GT-C□EXSS<br>100 : 10m<br>200 : 20m<br>300 : 30m<br>A8GT-C□EXSS-1 *4<br>100 : 10.6m<br>200 : 20.6m<br>300 : 30.6m | 12" A985(-V)<br>10" A97□<br>9" A960<br>7" A956W                       | A9GT-BUSS<br>A9GT-BUS2S<br>A9GT-50WBUSS | A9GT-BUSSU<br>A9GT-BUS2SU |  |   |   |                           |  |  |            |                         |  |  |                         |                           |                           |                         |  |
|   | Within 35m   |                      |    |     |     | A1SC□NB<br>05 : 0.5m<br>07 : 0.7m<br>30 : 3m<br>50 : 5m | A7GT-CNB | A8GT-C□EXSS<br>100 : 10m<br>200 : 20m<br>300 : 30m<br>A8GT-C□EXSS-1 *4<br>100 : 10.6m<br>200 : 20.6m<br>300 : 30.6m   | 12" A985(-V)<br>10" A97□<br>9" A960<br>7" A956W<br>6" A956<br>A951 *3 | A9GT-BUSS<br>A9GT-BUS2S<br>A9GT-50WBUSS | A9GT-BUSSU<br>A9GT-BUS2SU |  |   |   |                           |  |  |            |                         |  |  |                         |                           |                           |                         |  |
| 2 unit  | Within 5m    |                      |    |     |     |   |          | A1SC□B<br>07 : 0.7m<br>12 : 1.2m<br>30 : 3m<br>50 : 5m  | 12" A985(-V)<br>10" A97□<br>9" A960<br>7" A956W<br>6" A956<br>A951 *3 | A9GT-BUS2S                              | A9GT-BUS2SU               | A1SC□B<br>07 : 0.7m<br>12 : 1.2m<br>30 : 3m<br>50 : 5m<br>A8GT-C□BS<br>100 : 10m<br>200 : 20m<br>300 : 30m | 12" A985(-V)<br>10" A97□<br>9" A960<br>7" A956W<br>6" A956<br>A951 *3 | A9GT-BUSS<br>A9GT-BUS2S<br>A9GT-50WBUSS | A9GT-BUSSU<br>A9GT-BUS2SU |  |  |            |                         |  |  |                         |                           |                           |                         |  |
|   | More than 5m |                      |    |     |     |   |          | A8GT-C□EXSS<br>100 : 10m<br>200 : 20m<br>300 : 30m<br>A8GT-C□EXSS-1 *4<br>100 : 10.6m<br>200 : 20.6m<br>300 : 30.6m   | 12" A985(-V)<br>10" A97□<br>9" A960<br>7" A956W<br>6" A956            | A9GT-BUS2S                              | A9GT-BUS2SU               | A1SC□B<br>07 : 0.7m<br>12 : 1.2m<br>30 : 3m<br>50 : 5m<br>A8GT-C□BS<br>100 : 10m<br>200 : 20m<br>300 : 30m | 12" A985(-V)<br>10" A97□<br>9" A960<br>7" A956W<br>6" A956<br>A951 *3 | A9GT-BUSS<br>A9GT-BUS2S<br>A9GT-50WBUSS | A9GT-BUSSU<br>A9GT-BUS2SU |  |  |            |                         |  |  |                         |                           |                           |                         |  |
| 3 unit  | Within 5m    |                      |    |     |     |   |          | A1SC□B<br>07 : 0.7m<br>12 : 1.2m<br>30 : 3m<br>50 : 5m  | 12" A985(-V)<br>10" A97□<br>9" A960<br>7" A956W<br>6" A956            | A9GT-BUS2S                              | A9GT-BUS2SU               | A1SC□B<br>07 : 0.7m<br>12 : 1.2m<br>30 : 3m<br>50 : 5m<br>A8GT-C□BS<br>100 : 10m<br>200 : 20m<br>300 : 30m | 12" A985(-V)<br>10" A97□<br>9" A960<br>7" A956W<br>6" A956            | A9GT-BUS2S                              | A9GT-BUS2SU               | A1SC□B<br>07 : 0.7m<br>12 : 1.2m<br>30 : 3m<br>50 : 5m<br>A8GT-C□BS<br>100 : 10m<br>200 : 20m<br>300 : 30m | 12" A985(-V)<br>10" A97□<br>9" A960<br>7" A956W<br>6" A956 | A9GT-BUS2S | A9GT-BUS2SU             | A1SC□B<br>07 : 0.7m<br>12 : 1.2m<br>30 : 3m<br>50 : 5m<br>A8GT-C□BS<br>100 : 10m<br>200 : 20m<br>300 : 30m | 12" A985(-V)<br>10" A97□<br>9" A960<br>7" A956W<br>6" A956<br>A951 | A9GT-BUSS<br>A9GT-BUS2S | A9GT-BUSSU<br>A9GT-BUS2SU | A9GT-BUSSU<br>A9GT-BUS2SU |                         |  |

When connected with A0J2HCPU

Up to 1 GOT can be connected.

\*5: A power supply unit is required to connect the GOT.

| GOT connection conditions                            | System configuration |  |  |  | Component details     |   |                       |                      |  |   |  |  |  |  |  |  |
|--|----------------------|--|--|--|-----------------------|---|-----------------------|----------------------|--|---|--|--|--|--|--|--|
|  |                      |  |  |  | Cable 0 <sup>*2</sup> | Power supply unit <sup>*5</sup>   | Cable 1 <sup>*2</sup> | GOT1                 |  |   |  |  |  |  |  |  |
|  |                      |  |  |  |                       |   |                       | GOT main unit        |  | Communication interface                 |  |  |  |  |  |  |
| Connection distance                                  | 0m1m                 |  |  |  |                       |   |                       | Size                 | Model name   | Board type                              | Unit type  |  |  |  |  |  |
| Number of GOTs   Installation distance of first unit |                      |  |  |  |                       |   |                       |                      |  |   |  |  |  |  |  |  |
| 1 unit   | Within 1m            |  |  |  |                       | A0J2C□<br>03: 0.3m<br>(for horizontal installation)<br>06: 0.55m<br>(for vertical installation)<br>10: 1m<br>(for extension)<br>20: 2m<br>(for extension) | A0J2-PW               | A9GT-J2C□B<br>10: 1m | 12" A985(-V)<br>10" A97□<br>9" A960<br>7" A956W<br>6" A956 | A9GT-BUSS<br>A9GT-BUS2S<br>A9GT-50WBUSS | A9GT-BUSSU<br>A9GT-BUS2SU<br>A9GT-BUSSU<br>A9GT-BUS2SU |  |  |  |  |  |
|  |                      |  |  |  |                       |   |                       |                      |  |   |  |  |  |  |  |  |



## Bus connection

\*1: When expansion base units are used, the extension cable distance (between the base units) is also included.  
 \*2: Use the A168B expansion base unit.  
 \*3: Cable model name (example) A1SC□B 12: 1.2m, i.e. Model name: A1SC12B  
 \*4: No communication interface is required.  
 \*5: Use the value of the A8GT-C□EXSS to calculate the cable length of the A8GT-C□EXSS-1.

●Expansion bases are not used●

Others



Graphic Operation Terminal

900

series

Bus connection

●Expansion bases are used●

When connected with motion controller (large type: A273UCPU, A273UHCPU, A273UHCPU-S3, A373UCPU(-S3)) Up to 3 GOTs can be connected.

\*1: When expansion base units are used, the extension cable distance (between the base units) is also included.  
\*2: Use the A65B/A68B expansion base unit.  
\*3: Cable model name (example) A8GT-C□NB 50: 5m, i.e. Model name: A8GT-C50NB  
\*4: No communication interface is required.  
\*5: Use the value of the A8GT-C□EXSS to calculate the cable length of the A8GT-C□EXSS-1.

| GOT connection conditions |                | System configuration |      |  | Component details                            |                              |                       |               |                           |  |  |                       |               |                           |                         |  |                       |               |            |                         |           |
|---------------------------|----------------|----------------------|------|--|--|------------------------------|-----------------------|---------------|---------------------------|--|--|-----------------------|---------------|---------------------------|-------------------------|--|-----------------------|---------------|------------|-------------------------|-----------|
|                           |                |                      |      |  | Cable 0 <sup>*3</sup>                        | Bus connector conversion box | Cable 1 <sup>*3</sup> | GOT1          |                           |  |  | Cable 2 <sup>*3</sup> | GOT2          |                           |                         |  | Cable 3 <sup>*3</sup> | GOT3          |            |                         |           |
|                           |                |                      |      |  |  |                              |                       | GOT main unit |                           | Communication interface                          |  |                       | GOT main unit |                           | Communication interface |  |                       | GOT main unit |            | Communication interface |           |
| Connection distance       |                | 0m                   | 6.6m | 36.6m  |  |                              |                       | Size          | Model name                | Board type                                       | Unit type  |                       | Size          | Model name                | Board type              | Unit type  |                       | Size          | Model name | Board type              | Unit type |
| 1 unit                    | Within 6.6m    |                      |      |  | A8GT-C□NB<br>12 : 1.2m<br>30 : 3m<br>50 : 5m |                              | 12"                   | A985(-V)      | A9GT-BUSS                 | A9GT-BUSSU                                       |  |                       |               |                           |                         |  |                       |               |            |                         |           |
|                           |                |                      |      |  |  |                              | 10"                   | A97□          | A9GT-BUS2S                | A9GT-BUS2SU                                      |  |                       |               |                           |                         |  |                       |               |            |                         |           |
|                           |                |                      |      |  |  |                              | 9"                    | A960          | A9GT-BUS2S                | A9GT-BUS2SU                                      |  |                       |               |                           |                         |  |                       |               |            |                         |           |
|                           | More than 6.6m |                      |      | A8GT-C□EXSS-1 <sup>*5</sup><br>100 : 10.6m<br>200 : 20.6m<br>300 : 30.6m |  | 7"                           | A956W                 | A9GT-50WBUSS  | A9GT-BUSSU<br>A9GT-BUS2SU |  |  |                       |               |                           |                         |  |                       |               |            |                         |           |
|                           |                |                      |      |  |  | 6"                           | A956                  | —             | A9GT-BUSSU<br>A9GT-BUS2SU |  |  |                       |               |                           |                         |  |                       |               |            |                         |           |
|                           |                |                      |      |  |  | A951 <sup>*4</sup>           | —                     | —             |                           |  |  |                       |               |                           |                         |  |                       |               |            |                         |           |
| 2 unit                    | Within 6.6m    |                      |      |  | A8GT-C□NB<br>12 : 1.2m<br>30 : 3m<br>50 : 5m |                              | 12"                   | A985(-V)      | A9GT-BUS2S                | A9GT-BUS2SU                                      | A1SC□B<br>07 : 0.7m<br>12 : 1.2m<br>30 : 3m<br>50 : 5m | 12"                   | A985(-V)      | A9GT-BUSS                 | A9GT-BUSSU              |  |                       |               |            |                         |           |
|                           |                |                      |      |  |  |                              | 10"                   | A97□          | A9GT-BUS2S                | A9GT-BUS2SU                                      |  |                       |               |                           |                         |  |                       |               |            |                         |           |
|                           |                |                      |      |  |  |                              | 9"                    | A960          | A9GT-BUS2S                | A9GT-BUS2SU                                      |  |                       |               |                           |                         |  |                       |               |            |                         |           |
|                           | More than 6.6m |                      |      | A8GT-C□EXSS-1 <sup>*5</sup><br>100 : 10.6m<br>200 : 20.6m<br>300 : 30.6m |  | 7"                           | A956W                 | A9GT-50WBUSS  | A9GT-BUSSU<br>A9GT-BUS2SU | A8GT-C□BS<br>100 : 10m<br>200 : 20m<br>300 : 30m | 6"   | A956                  | —             | A9GT-BUSSU<br>A9GT-BUS2SU |                         |  |                       |               |            |                         |           |
|                           |                |                      |      |  |  | 6"                           | A956                  | —             | A9GT-BUSSU<br>A9GT-BUS2SU |  |  |                       |               |                           |                         |  |                       |               |            |                         |           |
|                           |                |                      |      |  |  | A951 <sup>*4</sup>           | —                     | —             |                           |  |  |                       |               |                           |                         |  |                       |               |            |                         |           |
| 3 unit                    | Within 6.6m    |                      |      |  | A8GT-C□NB<br>12 : 1.2m<br>30 : 3m<br>50 : 5m |                              | 12"                   | A985(-V)      | A9GT-BUS2S                | A9GT-BUS2SU                                      | A1SC□B<br>07 : 0.7m<br>12 : 1.2m<br>30 : 3m<br>50 : 5m | 12"                   | A985(-V)      | A9GT-BUS2S                | A9GT-BUS2SU             | A1SC□B<br>07 : 0.7m<br>12 : 1.2m<br>30 : 3m<br>50 : 5m | 12"                   | A985(-V)      | A9GT-BUSS  | A9GT-BUSSU              |           |
|                           |                |                      |      |  |  |                              | 10"                   | A97□          | A9GT-BUS2S                | A9GT-BUS2SU                                      |  |                       |               |                           |                         |  |                       |               |            |                         |           |
|                           |                |                      |      |  |  |                              | 9"                    | A960          | A9GT-BUS2S                | A9GT-BUS2SU                                      |  |                       |               |                           |                         |  |                       |               |            |                         |           |
|                           | More than 6.6m |                      |      | A8GT-C□EXSS-1 <sup>*5</sup><br>100 : 10.6m<br>200 : 20.6m<br>300 : 30.6m |  | 7"                           | A956W                 | A9GT-50WBUSS  | A9GT-BUSSU<br>A9GT-BUS2SU | A8GT-C□BS<br>100 : 10m<br>200 : 20m<br>300 : 30m | 6"   | A956                  | —             | A9GT-BUSSU<br>A9GT-BUS2SU |                         |  |                       |               |            |                         |           |
|                           |                |                      |      |  |  | 6"                           | A956                  | —             | A9GT-BUSSU<br>A9GT-BUS2SU |  |  |                       |               |                           |                         |  |                       |               |            |                         |           |
|                           |                |                      |      |  |  | A951 <sup>*4</sup>           | —                     | —             |                           |  |  |                       |               |                           |                         |  |                       |               |            |                         |           |



Graphic Operation Terminal

900

series

Specifications (Large size)

General specification

| Item                               |                                 | Specification  |  |  |                 |   |
|------------------------------------|---------------------------------|--|--|--|-----------------|---|
|                                    |                                 | A985GOT-TBA(-V), A975GOT-TBA(-B), A970GOT-TBA(-B), A970GOT-SBA, A970GOT-LBA, A960GOT-EBA             |  | A985GOT-TBD(-V), A975GOT-TBD(-B), A970GOT-TBD(-B), A970GOT-SBD, A970GOT-LBD, A960GOT-EBD           |                 |   |
| Operating ambient temperature      | Display                         | 0 to 40 °C (A975/A970GOT-TBA(-B)/TBD(-B): 0 to 50 °C)  |  |  |                 |   |
|                                    | Other than display              | 0 to 55°C  |  |  |                 |   |
| Storage ambient temperature        |                                 | -20 to 60°C  |  |  |                 |   |
| Operating/storage ambient humidity |                                 | 10 to 90% RH, no condensing  |  |  |                 |   |
| Vibration resistance               | Based on JIS B 3501, IEC61131-2 |  | Frequency                                  | Acceleration   | Amplitude       | Sweep count   |
|                                    |                                 | If intermittent vibration occurs   | 10 to 57 Hz                                | —  | 0.075 mm        | 10 times in each of X, Y, and Z directions (80 minutes) |
|                                    |                                 |  | 57 to 150 Hz                               | 9.8 m/s²   | —               |   |
|                                    |                                 | If continuous vibration occurs   | 10 to 57 Hz                                | —  | 0.035mm         |   |
| 57 to 150 Hz                       | 4.9m/s²                         |  | —  |  |                 |   |
| Impact resistance                  |                                 | Based on JIS B 3501, IEC 61131-2 (147 m/s², 3 times in X, Y and Z directions)                        |  |  |                 |   |
| Operating atmosphere               |                                 | No corrosive gas   |  |  |                 |   |
| Altitude                           |                                 | 2000 m or less   |  |  |                 |   |
| Overvoltage category               |                                 | II or lower  |  |  |                 |   |
| Contamination                      |                                 | 2 or less  |  |  |                 |   |
| Noise resistance                   |                                 | By noise simulation with noise voltage 1,500 Vp-p, noise width 1 μs, and noise frequency 25 to 60 Hz |  | By noise simulation with noise voltage 500 Vp-p, noise width 1 μs, and noise frequency 25 to 60 Hz |                 |   |
| Dielectric Withstand Voltage       |                                 | Apply 1500 VAC to between AC external pins and ground for one minute.                                |  | Apply 500 VAC to between DC external pins and ground for one minute.                               |                 |   |
| Insulation resistance              |                                 | 10 MΩ or higher with an insulation resistance tester   |  |  |                 |   |
| Grounding                          |                                 | D class ground (class 3 ground) If it cannot be grounded, connect it to the panel.                   |  |  |                 |   |
| Cooling method                     |                                 | Self cooling   |  |  |                 |   |
| Weight (g)                         |                                 | A985GOT-TBA/TBD(-V)  | A975GOT-TBA/TBD(-B)<br>A970GOT-TBA/TBD(-B) | A970GOT-SBA/SBD/LBA/LBD  | A960GOT-EBA/EBD |   |
|                                    |                                 | 2500   | 1700                                       | 1800   | 1600            |   |

Main unit (display)

| Item   |                            | Specification  |                              |                   |                               |                 |                     |                    |                                |
|--|----------------------------|--|------------------------------|-------------------|-------------------------------|-----------------|---------------------|--------------------|--------------------------------|
|  |                            | A985GOT-TBA/TBD(-V)  | A975GOT-TBA/TBD-B            | A970GOT-TBA/TBD-B | A975GOT-TBA/TBD               | A970GOT-TBA/TBD | A970GOT-SBA/SBD     | A970GOT-LBA/LBD    | A960GOT-EBA/EBD                |
| Display                                      | Type                       | High-intensity color LCD   | High-intensity color LCD     |                   | Wide-view-angle TFT color LCD |                 | D-STN color LCD     | STN monochrome LCD | High-intensity EL              |
|  | Resolution(dot)            | 800 x 600  |                              |                   | 640 x 480                     |                 |                     |                    | 640 x 400                      |
|  | Display size(mm)           | 246 x 184.5  |                              |                   | 211 x 158                     |                 | 8                   |                    | 192 x 120                      |
|  | Display color(color)       | 256  |                              | 16                | 256                           | 16              | 2 (black and white) |                    | 2 (yellowish orange and black) |
| Backlight                                    |                            | Cold cathode tube backlight (Backlight OFF/screen save time can be set.) |                              |                   |                               |                 |                     |                    |                                |
| Touch panel                                  | Number of touches (points) | 1900 (38 lines x 50 columns)   | 1200 (30 lines x 40 columns) |                   |                               |                 |                     |                    | 1000 (25 lines x 40 columns)   |
|  | Key size (Dot)             | Minimum 16 x 16 (one key)<br>(Bottom line only 8 x 16)                   | Minimum 16 x 16 (one key)    |                   |                               |                 |                     |                    |                                |
|  | Repeat function            | None   |                              |                   |                               |                 |                     |                    |                                |
| Buzzer output                                |                            | Single tone (tone can be adjusted.)                                      |                              |                   |                               |                 |                     |                    |                                |
| Environmental resistant protection structure |                            | IP65F or equivalent (front)  |                              |                   |                               |                 |                     |                    |                                |
| Memory                                       | Type                       | Flash ROM  |                              |                   |                               |                 |                     |                    |                                |
|  | Applications               | Monitor screen data storage, OS storage                                  |                              |                   |                               |                 |                     |                    |                                |
|  | Capacity                   | Internal 1M bytes (user area). It can be upgraded to 9M bytes.           |                              |                   |                               |                 |                     |                    |                                |

Life

| Item             |                                 | Specification   |                     |                     |                 |                 |   |
|------------------|---------------------------------|---|---------------------|---------------------|-----------------|-----------------|---|
|                  |                                 | A985GOT-TBA/TBD(-V)   | A975GOT-TBA/TBD(-B) | A970GOT-TBA/TBD(-B) | A970GOT-SBA/SBD | A970GOT-LBA/LBD | A960GOT-EBA/EBD   |
| Life             | Display (h)                     | 50,000  | 41,000              | 50,000              |                 | 30,000          |   |
|                  |                                 | (Operating ambient temperature: 25°C)   |                     |                     |                 |                 | (Operating ambient temperature:25°C, initial intensity 70%) |
|                  | Backlight (h)                   | 40,000  |                     |                     |                 |                 | —   |
|                  |                                 | Time for display intensity to become 50% at operating ambient temperature of 25°C |                     |                     |                 |                 |   |
|                  | Touch key                       | 1,000,000 times or more (Operation force 0.98 N or less)                          |                     |                     |                 |                 |   |
|                  | Internal memory                 | Number of writes: 100,000 times   |                     |                     |                 |                 |   |
| Expansion memory | Number of writes: 100,000 times |   |                     |                     |                 |                 |   |

Main unit (Power supply)

| Item                                   |        | Specification  |   |  |  |
|--|--------|--|---|--|--|
|  |        | A985GOT-TBA(-V), A975GOT-TBA(-B), A970GOT-TBA(-B), A970GOT-SBA, A970GOT-LBA, A960GOT-EBA |   | A985GOT-TBD(-V), A975GOT-TBD(-B), A970GOT-TBD(-B), A970GOT-SBD, A970GOT-LBD, A960GOT-EBD |  |
| Input power supply voltage             |        | 100 to 240V AC (+10%, -15%)  |   | 24V CC (+25%, -20%)  |  |
| Input frequency [Hz]                   |        | 50 / 60 ± 3Hz  |   | —  |  |
| Input maximum                          |        | Bus/RS-422/RS-232C connection  |   | Other than on the left   |  |
| voltampere                             | 100VAC | 50VA or less (59VA or less for A985GOT-V)  | 60VA or less (69VA or less for A985GOT-V) | —  |  |
|  | 200VAC | 63VA or less (74VA or less for A985GOT-V)  | 75VA or less (86VA or less for A985GOT-V) |  |  |
| Power consumption                      |        | —  |   | 40W  |  |
| Rush current                           |        | 40A or less (264VAC, maximum load)   |   | 61A or less (30VDC, maximum load)  |  |
| Permissible instantaneous failure time |        | 20ms (100VAC or more)  |   | 1ms (19.2VDC or more)  |  |
| RUN/OUTPUT pin                         |        | Transistor output 12/24VDC, 0.1A, 1 point  |   |  |  |

Graphic Operation Terminal

900

series

Specifications (Medium size)

Note: For the A95□handy GOT, see the GOT-F900 Series Catalog (HIME-B-127-C0104).

General specification

| Item                               |                                 | Specification  |                     |                      |                     |   |
|------------------------------------|---------------------------------|--|---------------------|----------------------|---------------------|---|
|                                    |                                 | A956WGOT-TBD, A95□GOT-(Q)TBD(-M3), A95□GOT-(Q)SBD(-M3), A95□GOT-(Q)LBD(-M3)                        |                     |                      |                     |   |
| Operating ambient temperature      | Display                         | 0 to 40°C(0 to 55°C for A956WGOT)  |                     |                      |                     |   |
|                                    | Other than display              | 0 to 55°C  |                     |                      |                     |   |
| Storage ambient temperature        |                                 | -20 to 60°C  |                     |                      |                     |   |
| Operating/storage ambient humidity |                                 | 10 to 90% RH, no condensing  |                     |                      |                     |   |
| Vibration resistance               | Based on JIS B 3501, IEC61131-2 |  | Frequency           | Acceleration         | Amplitude           | Sweep count   |
|                                    |                                 | If intermittent vibration occurs   | 10 to 57 Hz         | —                    | 0.075 mm            | 10 times in each of X, Y, and Z directions (80 minutes) |
|                                    |                                 |  | 57 to 150 Hz        | 9.8 m/s <sup>2</sup> | —                   |   |
|                                    |                                 | If continuous vibration occurs   | 10 to 57 Hz         | —                    | 0.035mm             |   |
|                                    |                                 |  | 57 to 150 Hz        | 4.9m/s <sup>2</sup>  | —                   |   |
| Impact resistance                  |                                 | Based on JIS B 3501, IEC 61131-2 (147 m/s <sup>2</sup> , 3 times in X, Y and Z directions)         |                     |                      |                     |   |
| Operating atmosphere               |                                 | No corrosive gas   |                     |                      |                     |   |
| Altitude                           |                                 | 2000 m or less   |                     |                      |                     |   |
| Overvoltage category               |                                 | II or lower  |                     |                      |                     |   |
| Contamination                      |                                 | 2 or less  |                     |                      |                     |   |
| Noise resistance                   |                                 | By noise simulation with noise voltage 500 Vp-p, noise width 1 μs, and noise frequency 25 to 60 Hz |                     |                      |                     |   |
| Dielectric Withstand Voltage       |                                 | Apply 500 VAC to between DC external pins and ground for one minute.                               |                     |                      |                     |   |
| Insulation resistance              |                                 | 10 MΩ or higher with an insulation resistance tester   |                     |                      |                     |   |
| Grounding                          |                                 | D class ground (class 3 ground) If it cannot be grounded, connect it to the panel.                 |                     |                      |                     |   |
| Cooling method                     |                                 | Self cooling   |                     |                      |                     |   |
| Weight (g)                         |                                 | A956WGOT-TBD   | A95□GOT-(Q)TBD(-M3) | A95□GOT-(Q)SBD(-M3)  | A95□GOT-(Q)LBD(-M3) |   |
|                                    |                                 | 1050   | 710                 | 670                  |                     |   |

Main unit (display)

| Item   |                            | Specification  |                               |                               |                     |
|--|----------------------------|--|-------------------------------|-------------------------------|---------------------|
|  |                            | A956WGOT-TBD   | A95□GOT(Q)TBD(-M3)            | A95□GOT-(Q)SBD(-M3)           | A95□GOT-(Q)LBD(-M3) |
| Display                                      | Type                       | TFT color LCD  |                               | STN color LCD                 | STN monochrome LCD  |
|  | Resolution(dot)            | 480 x 234  |                               | 320 x 240                     |                     |
|  | Display size(mm)           | 155.52 x 87.75   |                               | 115 x 86                      |                     |
|  | Display color(color)       | 256  |                               | 8                             | 2 (black and white) |
| Backlight                                    |                            | Cold cathode tube backlight (Backlight OFF/screen save time can be set.) |                               |                               |                     |
| Touch panel                                  | Number of touches (points) | 450 (15 lines x 30 columns)  |                               | 300 (15 lines x 20 columns)   |                     |
|  | Key size(Dot)              | Minimum 16x16 (one key)(Bottom line only 10x16)                          |                               |                               |                     |
|  | Repeat function            | Minimum 16 x 16 (one key)  |                               |                               |                     |
|  |                            | None   |                               |                               |                     |
| Buzzer output                                |                            | Single tone (tone can be adjusted.)                                      |                               |                               |                     |
| Environmental resistant protection structure |                            | IP65F or equivalent (front)  |                               |                               |                     |
| Memory                                       | Type                       | Flash ROM  |                               |                               |                     |
|  | Applications               | Monitor screen data storage, OS storage                                  |                               |                               |                     |
|  | Capacity                   | Internal 1M bytes (user area).<br>It can be increased up to 9M bytes.    | A95□GOT-(Q)□BD                |                               | A95□GOT-(Q)□BD-M3   |
|  |                            |  | Internal 1M bytes (user area) | Internal 3M bytes (user area) |                     |

Life

| Item |                  | Specification  |                     |                     |                     |
|------|------------------|--|---------------------|---------------------|---------------------|
|      |                  | A956WGOT-TBD   | A95□GOT-(Q)TBD(-M3) | A95□GOT-(Q)SBD(-M3) | A95□GOT-(Q)LBD(-M3) |
| Life | Display (h)      | 50,000 (Operating ambient temperature:25 °C)             |                     |                     |                     |
|      | Backlight (h)    | 50,000 *1  |                     | 40,000 *1           |                     |
|      | Touch key        | 1,000,000 times or more (Operation force 0.98 N or less) |                     |                     |                     |
|      | Internal memory  | Number of writes: 100,000 times                          |                     |                     |                     |
|      | Expansion memory | Number of writes: 100,000 times                          |                     |                     |                     |

\*1:Time for display intensity to become 50% at operating ambient temperature of 25 °C

Main unit (Power supply)

| Item                                   |  | Specification                         |   |                  |
|--|--|---------------------------------------|---|------------------|
|  |  | A956WGOT-TBD                          | A950GOT-□BD(-M3), A951GOT-(Q)□BD(-M3), A953GOT-□BD(-M3) | A956GOT-□BD(-M3) |
| Input power supply voltage             |  | DC24V(+10%, -15%)                     |   |                  |
| Power consumption                      |  | 22W                                   | 12W   | 16W              |
| Rush current                           |  | 40 A or less (26.4V DC, maximum load) |   |                  |
| Permissible instantaneous failure time |  | 1ms (19.2VDC or more)                 |   |                  |

•External interface

- ① Communication interface

② Communication board interface

③ Memory board interface

④ RS-232C interface

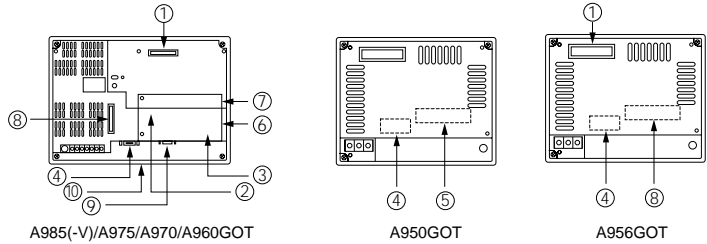
⑤ RS-422 interface
- ⑥ Audio output port

⑦ PC card interface unit

⑧ Optional unit interface

⑨ Printer interface

⑩ Analog RGB output interface (SVGA)  
(A985GOT-TBA/TBD only)





Graphic Operation Terminal

900

series

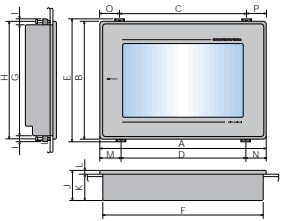
External dimensions

GOT main unit

A985GOT(-V), A97□GOT(-B), A960GOT, A956WGOT, A95□GOT(-M3)

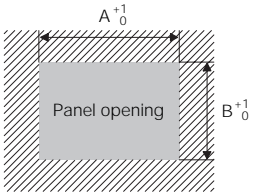
Note: For the A95□handy GOT, see the GOT-F900 Series Catalog.

External dimensions



| GOT main unit type      | A     | B   | C     | D     | E   | F     | G   | H   | I  | J    | K    | L | M    | N    | O    | P    |
|-------------------------|-------|-----|-------|-------|-----|-------|-----|-----|----|------|------|---|------|------|------|------|
| A985GOT(-V)             | 312   | 238 | 245   | 245   | 247 | 301   | 227 | 237 | 10 | 49   | 43   | 6 | 33.5 | 33.5 | 33.5 | 33.5 |
| A975/970GOT(-B)         | 297   | 208 | 235   | 229   | 219 | 288   | 199 | 209 | 10 | 46   | 40   | 6 | 34   | 34   | 31   | 31   |
| A960GOT                 | 268   | 192 | 204   | 198   | 202 | 257   | 182 | 192 | 10 | 49   | 43   | 6 | 35   | 35   | 32   | 32   |
| A956WGOT                | 215   | 133 | 168   | 168   | 143 | 205   | 123 | 133 | 10 | 70.8 | 65.8 | 5 | 23.5 | 23.5 | 23.5 | 23.5 |
| A95□GOT(-Q)TBD(-M3)     | 164.5 | 136 | 125.5 | 130.1 | 143 | 155.5 | 123 | 133 | 10 | 65   | 59   | 6 | 14.9 | 19.5 | 19.5 | 19.5 |
| A95□GOT(-Q)SBD/LBD(-M3) | 164.5 | 136 | 125.5 | 130.1 | 143 | 155.5 | 123 | 133 | 10 | 57   | 51   | 6 | 14.9 | 19.5 | 19.5 | 19.5 |

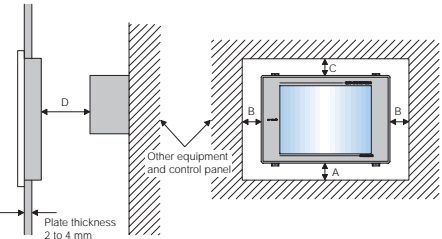
Panel cut dimensions



| GOT main unit type | A     | B     |
|--------------------|-------|-------|
| A985GOT(-V)        | 302   | 228   |
| A975/970GOT(-B)    | 289   | 200   |
| A960GOT            | 258   | 183   |
| A956WGOT           | 205.5 | 123.5 |
| A95□GOT(-M3)       | 156   | 123.5 |

Product installation interval

When a GOT is installed, the following spaces must be provided from other equipment as shown below.



| GOT main unit type + communication interface | A  |
|--|--|
| A985GOT(-V) + communication board            | 130mm or more  |
| A975/970GOT(-B) + communication board        | 130mm or more  |
| A960GOT + communication board                | 140mm or more  |
| A985GOT(-V)/A960GOT + A9GT-BUS(2)SU          | 30mm or more   |
| A975/970GOT(-B) + A9GT-BUS(2)SU              | 15mm or more   |
| A956WGOT/A956GOT(-M3)                        | 130mm or more<br>(When MELSECNET fiber-optic cable is used: 165mm or more) |
| A950/951(-Q)/953GOT(-M3)                     | 130mm or more  |

- Dimension of part A: The space shown in the above table is required because the GOT connection cable is drawn downward or horizontally and its radius of curvature should be considered.
- Dimension at part B: When a memory card or audio output is used, a space of 100 mm or more is required for connecting cables and install/remove memory cards. (Otherwise, 50 mm or more is required.)
- Dimension at part C: There must be a space of 80 mm or more from the structure or other equipment above the unit for good ventilation.
- Dimension at part D: If any equipment (such as contactor) that generates radiation, noise or a lot of heat is installed around the GOT, there must be a space of 100 mm or more at the rear and 50 mm or more on each side to prevent influences of noise or heat.

\* The ambient temperature for the unit body must be 55 degrees centigrade or less.

Bus connection cable, etc.

Bus connection cable and connector

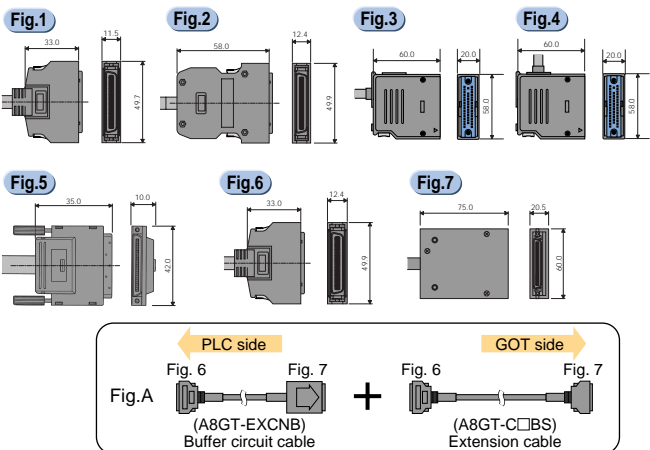
External dimensions

| Cable model name | Cable thickness (mm) | Connector dimensions (mm) and shape |          |
|------------------|----------------------|-------------------------------------|----------|
|                  |                      | GOT side                            | PLC side |
| A1SC□B           | 7                    | Fig. 1                              | Fig. 1   |
| *1 A8GT-C□BS     | 9                    | Fig. 6                              | Fig. 6   |
| *1 A8GT-C□EXSS   | 8                    | Fig. 1                              | Fig. 2   |
| *2 A8GT-C□EXSS-1 | 9                    | Fig. 6                              | Fig. 6   |
| A8GT-C□NCB       | 8                    | Fig. 1                              | Fig. 3   |
| A9GT-QC□BS       | 10                   | Fig. 5                              | Fig. 5   |
| AC□B             | 17                   | Fig. 3                              | Fig. 3   |
| AC□B-R           | 17                   | Fig. 4                              | Fig. 4   |
| QC□B             | 10                   | Fig. 5                              | Fig. 5   |
| A8GT-EXCNCB      | 9                    | Fig. 7                              | Fig. 6   |

\*The A8GT-C□EXSS/C□BS cable has a grounding wire (1 mm).

Be sure to connect this wire to the control panel, etc.

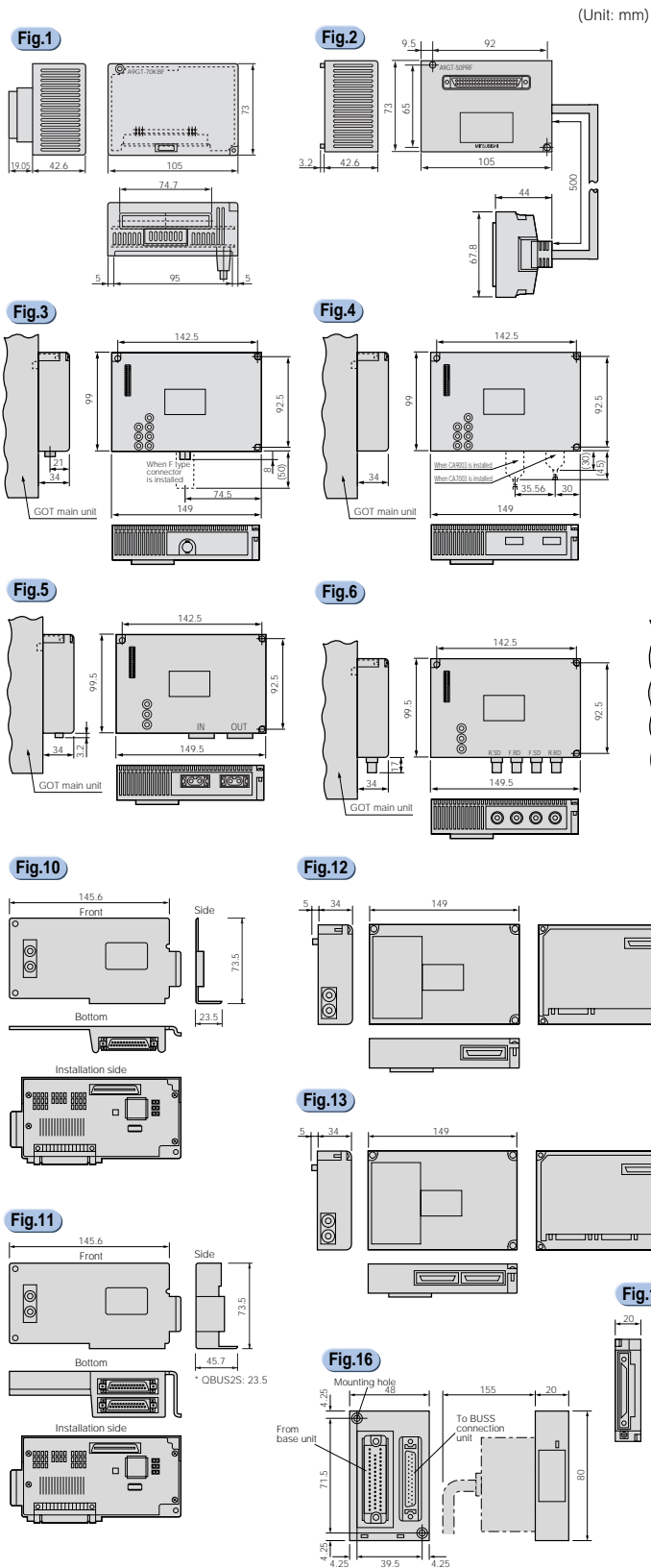
\*2: The A8GT-C□EXSS-1 is a set product consisting of the A8GT-EXCNCB and A8GT-C□BS. (See Fig.A)



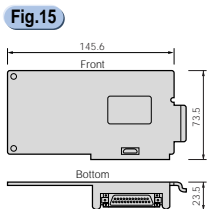
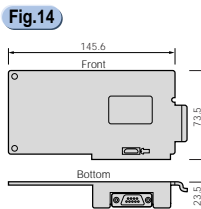
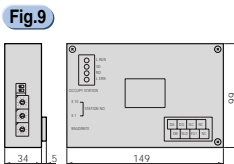
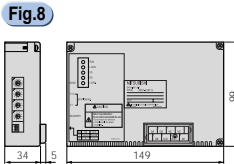
Options and communication unit

External input/output interface unit, communication unit

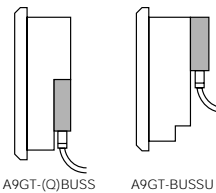
External dimensions



| Product name                         | Model name    | External dimensions |
|--------------------------------------|---------------|---------------------|
| External input/output interface unit | A9GT-70KBF    | Fig. 1              |
|                                      | A8GT-50KBF    | Fig. 2              |
|                                      | A9GT-BUSSU    | Fig. 12             |
|                                      |               | Fig. 13             |
|                                      | A7GT-J71LP23  | Fig. 4              |
|                                      |               | Fig. 3              |
|                                      |               | Fig. 5              |
|                                      |               | Fig. 6              |
|                                      | A7GT-J71AT23B | Fig. 7              |
|                                      |               | Fig. 8              |
| Communication board                  | A8GT-J61BT13  | Fig. 9              |
|                                      | A8GT-J61BT15  | Fig. 10             |
|                                      | A9GT-(Q)BUSS  | Fig. 11             |
|                                      |               | Fig. 14             |
|                                      | A9GT-RS2      | Fig. 15             |
| Bus/connector conversion box         |               | Fig. 16             |
| Bus extension connector box          |               | Fig. 17             |



The A9GT-BUSSU/BUS2SU is a communication unit that saves space for cable connection. It has the same shape as the network connection communication unit, and installed on the communication unit interface. It is installed as shown below.





Function list for each model

| Category                        | Function details   | Supplementary explanation  | Expansion<br>memory<br>board | Related<br>icons                             | Model         |           |         |         |         |         |          |         |
|---------------------------------|--|--|------------------------------|--|---------------|-----------|---------|---------|---------|---------|----------|---------|
|                                 |  |  |                              |  | GT<br>SoftGOT | A985      |         | A97□    |         | A960    | A95□     |         |
|                                 |  |  |                              |  |               | A985GOT-V | A985GOT | A975GOT | A970GOT | A960GOT | A956WGOT | A95□GOT |
| Connection<br>configuration     | Bus connection   |  |                              |  | ●*1           | ●         | ●       | ●       | ●       | ●       | ●        | ●*2,*4  |
|                                 | Computer link connection   |  |                              |  | ●             | ●         | ●       | ●       | ●       | ●       | ●        | ●*3     |
|                                 | CPU direct connection  | Refer to page 40 for connection of other manufacturer's products                             |                              | Various<br>connection<br>configurations      | ●             | ●         | ●       | ●       | ●       | ●       | ●        | ●*3     |
|                                 | MELSECNET connection   |  |                              |  |               | ●         | ●       | ●       | ●       | ●       | ●        | ●*4     |
|                                 | CC-Link connection   |  |                              |  |               | ●         | ●       | ●       | ●       | ●       | ●        | ●*4     |
|                                 | Ethernet connection  |  |                              |  | ●             | ●         | ●       | ●       | ●       | ●       | ●        | ●*4     |
|                                 | Microcomputer connection   |  |                              |  |               | ●         | ●       | ●       | ●       | ●       | ●        | ●*3     |
| Max. user<br>memory<br>capacity | 9MB  | Main unit internal memory 1M + expansion memory max.8M                                       |                              |  |               |           |         |         |         |         |          |         |
|                                 | 3MB  | Memory cannot be increased.  |                              |  |               |           |         |         |         |         |          |         |
|                                 | 1MB  | Memory cannot be increased.  |                              |  |               |           |         |         |         |         |          |         |
| Display<br>colors               | 256 colors   |  |                              | 256<br>colors<br>display                     | ●             | ●         | ●       | ●       |         |         | ●        | ●*5     |
|                                 | 16 colors  |  |                              |  |               |           |         |         | ●       |         |          |         |
|                                 | 8 colors   |  |                              |  |               |           |         |         | ●       |         |          | ●       |
|                                 | Monochrome (black and white)                                     |  |                              |  |               |           |         |         | ●       |         |          | ●       |
|                                 | Monochrome (black and yellowish orange)                          |  |                              |  |               |           |         |         |         | ●       |          |         |
| Resolution                      | 1280 x 1024 dots   |  |                              |  | ●             |           |         |         |         |         |          |         |
|                                 | 1024 x 768 dots  |  |                              |  | ●             |           |         |         |         |         |          |         |
|                                 | 800 x 600 dots   |  |                              |  | ●             | ●         | ●       |         |         |         |          |         |
|                                 | 640 x 480 dots   |  |                              |  | ●             |           |         | ●       | ●       |         |          |         |
|                                 | 640 x 400 dots   |  |                              |  |               |           |         |         |         | ●       |          |         |
|                                 | 480 x 234 dots   |  |                              |  |               |           |         |         |         |         | ●        |         |
|                                 | 320 x 40 dots  |  |                              |  |               |           |         |         |         |         |          | ●       |
| External<br>interface           | Communication board interface<br>or communication unit interface | Bus connection, network connection,<br>RS-232C connection, RS-422 connection                 |                              |  |               | ●         | ●       | ●       | ●       | ●       | ●        |         |
|                                 | A95□GOT-dedicated<br>communication interface                     | Bus connection, network connection,<br>RS-232C connection, RS-422 connection                 |                              |  |               |           |         |         |         |         |          | ●*6     |
|                                 | RS-232C interface  | OS installation, screen data upload/download/barcode reader                                  |                              |  |               | ●         | ●       | ●       | ●       | ●       | ●        | ●       |
|                                 | Memory board interface   |  |                              |  |               | ●         | ●       | ●       | ●       | ●       | ●        |         |
|                                 | Audio output port  | External speaker containing an amplifier   |                              |  |               | ●         | ●       | ●       | ●       | ●       | ●        |         |
|                                 | PC card interface  | PC card  |                              |  |               | ●         | ●       | ●       | ●       | ●       | ●*7      |         |
|                                 | Optional unit interface  | Interface unit for external input/output, printer,<br>PC card, analog RGB input, video input |                              |  |               | ●         | ●       | ●       | ●       | ●       | ●        | ●       |
|                                 | Printer interface  | Printer  |                              |  |               | ●         | ●       | ●       | ●       | ●       |          |         |
|                                 | Analog RGB output interface (SVGA)                               | External CRT   |                              |  |               |           | ●       |         |         |         |          |         |
| Features/<br>hardware           | Backlight replacement  |  |                              | Backlight<br>replacement                     |               | ●         | ●       | ●       | ●       |         |          | ●*8     |
|                                 | Audio output   |  | Required                     | Audio<br>output                              |               | ●         | ●       | ●       | ●       | ●       |          |         |
|                                 | Printer output   | Hard copy, alarm history printing,<br>report   |                              | Printer<br>output                            |               | ●         | ●       | ●       | ●       | ●       | ●*9      | ●*9     |
|                                 | Environment resistance   | IP65F or equivalent (front)  |                              | Environment<br>resistance<br>(IP65F)         |               | ●         | ●       | ●       | ●       | ●       | ●        | ●       |
|                                 | Compact  | Frame size, depth  |                              | Compact<br>size                              |               | ●         | ●       | ●       | ●       | ●       | ●        | ●       |
|                                 | Video input  |  |                              | Video<br>input                               |               | ●         |         |         |         |         |          |         |
|                                 | Human sensor   |  |                              | Human<br>sensor                              |               | ●         | ●       |         |         |         |          |         |
|                                 | Analog RGB output  |  |                              | Analog<br>RGB<br>output                      |               |           | ●       |         |         |         |          |         |
|                                 | Analog RGB output  |  |                              | Analog<br>RGB<br>input                       |               | ●         |         |         |         |         |          |         |
|                                 | Barcode reader input   |  |                              |  |               | ●         | ●       | ●       | ●       | ●       | ●        | ●       |
|                                 | OS installation  |  |                              | OS<br>installation                           |               | ●         | ●       | ●       | ●       | ●       | ●        | ●       |
|                                 | OS/screen data transfer to PC card                               |  |                              |  |               | ●         | ●       | ●       | ●       | ●       | ●        | ●*10    |
|                                 | Attachment   |  |                              |  |               |           |         | ●       | ●       | ●       |          | ●       |
|                                 | Transparent  | Bus connection, CPU direct connection  |                              | Transparent                                  |               | ●         | ●       | ●       | ●       | ●       | ●        | ●       |
| Main unit<br>functions          | Gateway functions  |  | Required                     |  |               | ●         | ●       | ●       | ●       | ●       | ●        | ●*4     |
|                                 | Script   |  |                              | Script                                       | ●             | ●         | ●       | ●       | ●       | ●       | ●        | ●       |
|                                 | Multi-language   | UNICODE is used.   |                              | Multi-<br>language                           | ●             | ●         | ●       | ●       | ●       | ●       | ●        | ●       |
|                                 | Time action  |  |                              | Time<br>action                               | ●             | ●         | ●       | ●       | ●       | ●       | ●        | ●       |
|                                 | Display condition specification                                  |  |                              | Display<br>condition<br>specification        | ●             | ●         | ●       | ●       | ●       | ●       | ●        | ●       |
|                                 | Display switching  |  |                              | Display<br>switching                         | ●             | ●         | ●       | ●       | ●       | ●       | ●        | ●       |
|                                 | Indirect specification<br>(offset device)                        |  |                              | Indirect<br>specification<br>(offset device) | ●             | ●         | ●       | ●       | ●       | ●       | ●        | ●       |
|                                 | PC station number switching                                      |  |                              | PC station<br>number<br>switching            | ●             | ●         | ●       | ●       | ●       | ●       | ●        | ●       |
|                                 |  |  |                              |  |               |           |         |         |         |         |          |         |
|                                 |  |  |                              |  |               |           |         |         |         |         |          |         |

| Category                         | Function details  | Supplementary explanation   | Expansion<br>memory<br>board | Related<br>icons                         | Model           |                 |                 |                 |                 |                 |                |                |
|----------------------------------|---|---|------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|----------------|
|                                  |   |   |                              |  | GT<br>SoftGOT   | A985            |                 | A97□            |                 | A960            | A95□           |                |
|                                  |   |   |                              |  |                 | A985GOT-V       | A985GOT         | A975GOT         | A970GOT         | A960GOT         | A956WGOT       | A95□GOT        |
| Main unit<br>functions           | Touch switch  | Number of items that can be set<br>(lines ( columns))                         |                              | A variety<br>of touch<br>switches        | 1900<br>(38x50) | 1900<br>(38x50) | 1900<br>(38x50) | 1200<br>(30x40) | 1200<br>(30x40) | 1000<br>(25x40) | 450<br>(15x30) | 300<br>(15x20) |
|                                  |   | Time delay switch, double-press switch,<br>operation mode specification, etc. |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  |   |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Numeric display   |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | ASCII display   |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Numeric input   |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | ASCII input   |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Data list display                                       |   |                              | Data<br>list                             | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Clock display   |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Comment display   |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Alarm history display                                   |   |                              | Alarm<br>history                         | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Alarm flow display                                      |   |                              | Alarm<br>flow<br>display                 | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Alarm list display                                      |   |                              | Alarm<br>list                            | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Component display                                       |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Component movement display                              |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Lamp display  |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Trend graph   |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Line graph  |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Locus chart display                                     |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Scatter graph   |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Bar graph   |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Statistical graph                                       |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Level display   |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Superimposed window display                             |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Overlap window display                                  |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Screen reading  | Nest reading  |                              | Screen<br>call                           | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | System information                                      |   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Status monitor  |   |                              | Status<br>monitor                        | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Password (Security)                                     |   |                              | Security                                 | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Recipe  |   | Required<br>*13              | Recipe                                   | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●*12           |
| Maintenance<br>functions         | System monitor  |   |                              | System<br>monitor                        | *15             | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Ladder monitor *14<br>(including cause search function) |   | Required                     | Ladder<br>monitor                        | *15             | ●               | ●               | ●               | ●               | ●               | ●*11           |                |
|                                  | Special unit monitor                                    |   | Required                     | Special<br>unit<br>monitor               | *15             | ●               | ●               | ●               | ●               | ●               |                |                |
|                                  | Motion monitor  |   | Required                     | Motion<br>monitor                        | *15             | ●               | ●               | ●               | ●               | ●               | ●              | ●*12           |
|                                  | List edition  |   | Required                     | List<br>edition                          | *15             | ●               | ●               | ●               | ●               | ●               | ●              | ●*12           |
|                                  | Network monitor   |   | Required                     | Network<br>monitor                       | *15             | ●               | ●               | ●               | ●               | ●               | ●              | ●*12           |
|                                  |   |   |                              |  |                 |                 |                 |                 |                 |                 |                |                |
| Drawing<br>software              | GT Works Plus   | GT SoftGOT + GT SoftGOT license key<br>+ GT Designer + GT Simulator           |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | GT Works  | GT SoftGOT + GT Designer + GT Simulator                                       |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | GT Designer   | GT Designer   |                              |  | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
| Drawing<br>software<br>functions | GOT simulation  |   |                              | GOT<br>simulation                        | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Converter   | GOT-A800 → GOT-A900<br>GP→GOT-A900  |                              | Converter                                | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Project manager   |   |                              | Project<br>manager                       | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Off-line debugger                                       | Display image bitmap data write,<br>text data write                           |                              | Off-line<br>debugger                     | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Documentation assistance                                | Display image   |                              | Documentation<br>assistance              | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Bitmap data read  | AutoCAD LT98(Release14)   |                              | Bitmap<br>data<br>read                   | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | CAD data read   |   |                              | CAD<br>data<br>read                      | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  | Refer to GX Developer<br>comment data                   |   |                              | Refer to<br>GX Developer<br>comment data | ●               | ●               | ●               | ●               | ●               | ●               | ●              | ●              |
|                                  |   |   |                              |  |                 |                 |                 |                 |                 |                 |                |                |
|                                  |   |   |                              |  |                 |                 |                 |                 |                 |                 |                |                |

\*1: Only when connected with PC CPU  
\*2: A951GOT(-Q) only  
\*3: A950/A953GOT only  
\*4: A956GOT only  
\*5: A95□GOT-TBD only  
\*6: The built-in interface depends on  
the model. See page 26 for details.

\*7: Compact flash PC card interface  
\*8: Except A95□GOT-TBD  
\*9: The A9GT-50PRF printer interface unit (option) is required.  
\*10: The A1SD59J-MIF PC card interface unit (option) is required.  
\*11: Only when connected with QCPU (Q mode)  
\*12: A95□GOT-M3 only

\*13: The expansion memory board is not required for GT SoftGOT.  
\*14: When ladder monitor is performed, the expansion memory board  
to be installed changes depending on the connection target CPU.  
QCPU (Q mode)/QnACPU ∙ A9GT-QFNB(□M)  
Q/QnA/A/motion controller (A series)/FXCPU ∙ A9GT-FNB(□M)  
\*15: Enabled by dedicated software.



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Notes for Use

Maintenance functions

- (1) Some functions are unavailable depending on the GOT. See page 54 "Function list".
- (2) Some functions are unavailable depending on the connection target and connection configuration. There are the following restrictions on the functions according to the connection target and connection configuration. For the connectable CPU model names, see page 40 "Connectable model list". For the access ranges that can be monitored, see the manual since they differ between the connection target CPU types and connection configurations.

| Bus connection           |                             |                                 |                             |                   |                 |                                 |
|--------------------------|-----------------------------|---------------------------------|-----------------------------|-------------------|-----------------|---------------------------------|
| Connection configuration | MELSEC-Q series<br>(Q mode) | Motion controller<br>(Q series) | MELSEC-Q series<br>(A mode) | MELSEC-QnA series | MELSEC-A series | Motion controller<br>(A series) |
| Function                 | Connection target           |                                 |                             |                   |                 |                                 |
| System monitor           | ○ <sup>*1</sup>             | ×                               | —                           | ○                 | ○               | ○                               |
| Ladder monitor           | ○                           | ×                               | —                           | ○                 | ○               | ○                               |
| (Failure cause search)   | ○                           | ×                               | —                           | ×                 | ○               | ○                               |
| Special unit monitor     | ○                           | ×                               | —                           | ○                 | ○               | ○                               |
| Motion monitor           | ×                           | ○                               | —                           | ×                 | ×               | ×                               |
| List edition             | ×                           | ×                               | —                           | ×                 | ○               | ○                               |
| Network monitor          | ○                           | ×                               | —                           | ○                 | ○               | ○                               |

| CPU direct connection    |                             |                                 |                             |                   |                 |                                 |
|--------------------------|-----------------------------|---------------------------------|-----------------------------|-------------------|-----------------|---------------------------------|
| Connection configuration | MELSEC-Q series<br>(Q mode) | Motion controller<br>(Q series) | MELSEC-Q series<br>(A mode) | MELSEC-QnA series | MELSEC-A series | Motion controller<br>(A series) |
| Function                 | Connection target           |                                 |                             |                   |                 |                                 |
| System monitor           | ○ <sup>*1</sup>             | ×                               | ○                           | ○                 | ○               | ○                               |
| Ladder monitor           | ○                           | ×                               | ○                           | ○                 | ○               | ○                               |
| (Failure cause search)   | ○                           | ×                               | ○                           | ×                 | ○               | ○                               |
| Special unit monitor     | ○                           | ×                               | ○                           | ○                 | ○               | ○                               |
| Motion monitor           | ×                           | ○                               | ×                           | ×                 | ×               | ×                               |
| List edition             | ×                           | ×                               | ○                           | ×                 | ○               | ○                               |
| Network monitor          | ○                           | ×                               | ○                           | ○                 | ○               | ○                               |

| Computer link connection |                             |                                 |                             |                   |                 |                                 |
|--------------------------|-----------------------------|---------------------------------|-----------------------------|-------------------|-----------------|---------------------------------|
| Connection configuration | MELSEC-Q series<br>(Q mode) | Motion controller<br>(Q series) | MELSEC-Q series<br>(A mode) | MELSEC-QnA series | MELSEC-A series | Motion controller<br>(A series) |
| Function                 | Connection target           |                                 |                             |                   |                 |                                 |
| System monitor           | ○ <sup>*1,2</sup>           | —                               | ○ <sup>*3</sup>             | ○ <sup>*2</sup>   | ○ <sup>*3</sup> | ○ <sup>*3</sup>                 |
| Ladder monitor           | ○                           | —                               | ○ <sup>*4</sup>             | ○                 | ○ <sup>*4</sup> | ○ <sup>*4</sup>                 |
| (Failure cause search)   | ○                           | —                               | ○                           | ×                 | ○               | ○                               |
| Special unit monitor     | ○                           | —                               | ×                           | ○                 | ×               | ×                               |
| Motion monitor           | ×                           | —                               | ×                           | ×                 | ×               | ×                               |
| List edition             | ×                           | —                               | ×                           | ×                 | ×               | ×                               |
| Network monitor          | ○                           | —                               | ○                           | ○                 | ○               | ○                               |

<sup>\*1</sup>: The Q172CPU and Q173CPU motion controllers cannot be monitored.  
<sup>\*2</sup>: V and Z cannot be changed.  
<sup>\*3</sup>: V, Z and T/C set values cannot be changed.  
<sup>\*4</sup>: A4UCPU subprograms 2, 3 cannot be monitored.  
<sup>\*5</sup>: Changes as indicated below depending on the used communication unit.

| Communication unit      |                               | A8GT-J61BT13 (Intelligent device station) |                             |                   |                 |                                 | (Remote device station)     |                             |                   |                 |                                 |
|-------------------------|-------------------------------|---|-----------------------------|-------------------|-----------------|---------------------------------|-----------------------------|-----------------------------|-------------------|-----------------|---------------------------------|
| Connected CPU           |                               | MELSEC-Q series<br>(Q mode)               | MELSEC-Q series<br>(A mode) | MELSEC-QnA series | MELSEC-A series | Motion controller<br>(A series) | MELSEC-Q series<br>(Q mode) | MELSEC-Q series<br>(A mode) | MELSEC-QnA series | MELSEC-A series | Motion controller<br>(A series) |
| System monitor function | Registration monitor          | ○   | ○                           | ○                 | ○               | ○                               | ○ <sup>*8</sup>             | ○ <sup>*8</sup>             | ○ <sup>*8</sup>   | ○ <sup>*8</sup> | ○ <sup>*8</sup>                 |
|                         | Batch monitor                 | ○   | ○                           | ○                 | ○               | ○                               | ○ <sup>*8</sup>             | ○ <sup>*8</sup>             | ○ <sup>*8</sup>   | ○ <sup>*8</sup> | ○ <sup>*8</sup>                 |
| System monitor          | T/C monitor, set value change | ○ <sup>*9</sup>                           | ○                           | ○                 | ○               | ○                               | ×                           | ×                           | ×                 | ×               | ×                               |
|                         | B/M monitor                   | ○   | ○                           | ○                 | ○               | ○                               | ×                           | ×                           | ×                 | ×               | ×                               |
|                         | Data change by test operation | ○   | ○                           | ○                 | ○               | ○                               | ×                           | ×                           | ×                 | ×               | ×                               |
| Device comment display  |                               | ○ <sup>*9</sup>                           | ○                           | ○                 | ○               | ○                               | ×                           | ×                           | ×                 | ×               | ×                               |

<sup>\*8</sup>: Only the link devices assigned to the GOT can be monitored.  
<sup>\*9</sup>: Can be monitored only when the software version X or later of the A8GT-J61BT13 is used.

System monitor

When using the MELSEC-QnA series to monitor or change the timer/counter settings or display device comments, use the QnA/Q2AS/Q2ASHCPU of version B or later. (Except the Q4ARCPU)

List edition

When the A2USH-S1/A2SH-S1/A2SH/A1SH/A1SJHCPU is used, there are the following restrictions on the list edition range.

- When A2USHCPU-S1 is used: Within the A3UCPU range
- When A2SH/A1SH/A1SJHCPU is used: Within the A3NCPU range

Special unit monitor

The AD75M□/A1SD75M□ special units can be monitored in the AD75P□/A1SD75P□ range.

Multi-language

To create screens in foreign languages, use the English version drawing software on corresponding language Windows®.

Motion

- Use the motion controller CPU (Q series) of the following version.
  - 1) Product whose OS version is Ver. 00E
  - 2) Product whose unit serial number is as follows (given on the rating plate of the CPU unit side face)  
Q172CPU: Serial number K\*\*\*\*\*, Q173CPU: Serial number J\*\*\*\*\*
- Current value history monitor is not supported by the A95□IGOT.
- Servo parameter setting is enabled for the MR-J2S of servo amplifier version B1 or later.
- In a multiple PLC system, the PLC No. 1 is always the Q series PLC CPU. Also, always install the Q series PLC CPU on the main base on the left of the Q172CPU/Q173CPU.
- JOG operation, servo test, etc. are not supported.

GOT-F900 series specifications/functions

The GOT-F900 series differs in some specifications/functions from the GOT-A900 series. Refer to the GOT-F900 Series Catalog for details.

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List of products

GOT main units

| Product name | Model name       | Specifications  |
|--------------|------------------|---|
| A985GOT-V    | A985GOT-TBA-V    | 800 x 600 dots, 256-color TFT color LCD, large electronic operation panel, high intensity (built-in 100 to 240VAC power supply, internal memory 1M), video/RGB display function supported                       |
|              | A985GOT-TBD-V    | 800 x 600 dots, 256-color TFT color LCD, large electronic operation panel, high intensity (built-in 24VDC power supply, internal memory 1M), video/RGB display function supported                               |
|              | A985GOT-TBA-V-EU | 800 x 600 dots, 256-color TFT color LCD, large electronic operation panel, high intensity (built-in 100 to 240VAC power supply, internal memory 1M), video/RGB display function supported (Soon to be released) |
| A985GOT      | A985GOT-TBA      | 800 x 600 dots, 256-color TFT color LCD, large electronic operation panel, high intensity (built-in 100 to 240VAC power supply, internal memory 1M)   |
|              | A985GOT-TBD      | 800 x 600 dots, 256-color TFT color LCD, large electronic operation panel, high intensity (built-in 24VDC power supply, internal memory 1M)   |
|              | A985GOT-TBA-EU   | 800 x 600 dots, 256-color TFT color LCD, large electronic operation panel, high intensity (built-in 100 to 240VAC power supply, internal memory 1M), CE-compliant   |
| A975GOT      | A975GOT-TBA-B    | 640 x 480 dots, 256-color TFT color LCD, large electronic operation panel, high intensity (built-in 100 to 240VAC power supply, internal memory 1M)   |
|              | A975GOT-TBD-B    | 640 x 480 dots, 256-color TFT color LCD, large electronic operation panel, high intensity (built-in 24VDC power supply, internal memory 1M)   |
|              | A975GOT-TBA      | 640 x 480 dots, 256-color TFT color LCD, large electronic operation panel, wide view angle (built-in 100 to 240VAC power supply, internal memory 1M)  |
|              | A975GOT-TBD      | 640 x 480 dots, 256-color TFT color LCD, large electronic operation panel, wide view angle (built-in 24VDC power supply, internal memory 1M)  |
|              | A975GOT-TBA-EU   | 640 x 480 dots, 256-color TFT color LCD, large electronic operation panel, high intensity (built-in 100 to 240VAC power supply, internal memory 1M), CE-compliant   |
| A970GOT      | A970GOT-TBA-B    | 640 x 480 dots, 16-color TFT color LCD, large electronic operation panel, high intensity (built-in 100 to 240VAC power supply, internal memory 1M)  |
|              | A970GOT-TBD-B    | 640 x 480 dots, 16-color TFT color LCD, large electronic operation panel, high intensity (built-in 24VDC power supply, internal memory 1M)  |
|              | A970GOT-TBA      | 640 x 480 dots, 16-color TFT color LCD, large electronic operation panel, wide view angle (built-in 100 to 240VAC power supply, internal memory 1M)   |
|              | A970GOT-TBD      | 640 x 480 dots, 16-color TFT color LCD, large electronic operation panel, wide view angle (built-in 24VDC power supply, internal memory 1M)   |
|              | A970GOT-TBA-EU   | 640 x 480 dots, 16-color TFT color LCD, large electronic operation panel, high intensity (built-in 100 to 240VAC power supply, internal memory 1M), CE-compliant  |
|              | A970GOT-SBA      | 640 x 480 dots, 8-color STN color LCD, large electronic operation panel (built-in 100 to 240VAC power supply, internal memory 1M)   |
|              | A970GOT-SBD      | 640 x 480 dots, 8-color STN color LCD, large electronic operation panel (built-in 24VDC power supply, internal memory 1M)   |
|              | A970GOT-SBA-EU   | 640 x 480 dots, 8-color STN color LCD, large electronic operation panel (built-in 100 to 240VAC power supply, internal memory 1M), CE-compliant   |
|              | A970GOT-LBA      | 640 x 480 dots, 2-color STN monochrome (black & white) LCD, large electronic operation panel (built-in 100 to 240VAC power supply, internal memory 1M)  |
|              | A970GOT-LBD      | 640 x 480 dots, 2-color STN monochrome (black & white) LCD, large electronic operation panel (built-in 24VDC power supply, internal memory 1M)  |
| A960GOT      | A960GOT-LBA-EU   | 640 x 480 dots, 2-color STN monochrome (black & white) LCD, large electronic operation panel (built-in 24VDC power supply, internal memory 1M), CE-compliant  |
|              | A960GOT-EBA      | 640 x 400 dots, 2-color EL (black/yellow) LCD, large electronic operation panel (built-in 100 to 240VAC power supply, internal memory 1M)   |
|              | A960GOT-EBD      | 640 x 400 dots, 2-color EL (black/yellow) LCD, large electronic operation panel (built-in 24VDC power supply, internal memory 1M)   |
| A960GOT      | A960GOT-EBA-EU   | 640 x 400 dots, 2-color EL (black/yellow) LCD, large electronic operation panel (built-in 100 to 240VAC power supply, internal memory 1M), CE-compliant   |
|              | A956WGOT-TBD     | 480 x 234 dots, 256-color TFT color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 1M)   |
| A950GOT      | A950GOT-TBD-M3   | 320 x 240 dots, 256-color TFT color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 3M), RS-422 interface   |
|              | A950GOT-TBD      | 320 x 240 dots, 256-color TFT color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 1M), RS-422 interface   |
|              | A950GOT-SBD-M3   | 320 x 240 dots, 8-color STN color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 3M), RS-422 interface, CE-compliant   |
|              | A950GOT-SBD      | 320 x 240 dots, 8-color STN color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 1M), RS-422 interface, CE-compliant   |
|              | A950GOT-LBD-M3   | 320 x 240 dots, 2-color STN monochrome (black & white) LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 3M), RS-422 interface, CE-compliant                            |
|              | A950GOT-LBD      | 320 x 240 dots, 2-color STN monochrome (black & white) LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 1M), RS-422 interface, CE-compliant                            |
|              | A951GOT-QTBD-M3  | 320 x 240 dots, 256-color TFT color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 3M), Q bus interface  |
|              | A951GOT-QTBD     | 320 x 240 dots, 256-color TFT color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 1M), Q bus interface  |
|              | A951GOT-QSBD-M3  | 320 x 240 dots, 8-color STN color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 3M), Q bus interface  |
|              | A951GOT-QSBD     | 320 x 240 dots, 8-color STN color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 1M), Q bus interface  |
|              | A951GOT-TBD-M3   | 320 x 240 dots, 256-color TFT color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 3M), QnA/A bus interface  |
|              | A951GOT-TBD      | 320 x 240 dots, 256-color TFT color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 1M), QnA/A bus interface  |
|              | A951GOT-SBD-M3   | 320 x 240 dots, 8-color STN color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 3M), QnA/A bus interface, CE-compliant  |
|              | A951GOT-SBD      | 320 x 240 dots, 8-color STN color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 1M), QnA/A bus interface, CE-compliant  |
|              | A951GOT-QLBD-M3  | 320 x 240 dots, 2-color STN monochrome (black & white) LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 3M), Q bus interface   |
| A953GOT      | A951GOT-QLBD     | 320 x 240 dots, 2-color STN monochrome (black & white) LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 1M), Q bus interface   |
|              | A951GOT-LBD-M3   | 320 x 240 dots, 2-color STN monochrome (black & white) LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 3M), QnA/A bus interface, CE-compliant                         |
|              | A951GOT-LBD      | 320 x 240 dots, 2-color STN monochrome (black & white) LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 1M), QnA/A bus interface, CE-compliant                         |
|              | A953GOT-TBD-M3   | 320 x 240 dots, 256-color TFT color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 3M), RS-232C interface  |
|              | A953GOT-TBD      | 320 x 240 dots, 256-color TFT color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 1M), RS-232C interface  |
|              | A953GOT-SBD-M3   | 320 x 240 dots, 8-color STN color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 3M), RS-232C interface, CE-compliant  |
|              | A953GOT-SBD      | 320 x 240 dots, 8-color STN color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 1M), RS-232C interface, CE-compliant  |
|              | A953GOT-LBD-M3   | 320 x 240 dots, 2-color STN monochrome (black & white) LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 3M), RS-232C interface, CE-compliant                           |
|              | A953GOT-LBD      | 320 x 240 dots, 2-color STN monochrome (black & white) LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 1M), RS-232C interface, CE-compliant                           |
|              | A956GOT-TBD-M3   | 320 x 240 dots, 256-color TFT color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 3M), communication unit interface   |
| A956GOT      | A956GOT-TBD      | 320 x 240 dots, 256-color TFT color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 1M), communication unit interface   |
|              | A956GOT-SBD-M3   | 320 x 240 dots, 8-color STN color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 3M), communication unit interface, CE-compliant                                     |
|              | A956GOT-SBD      | 320 x 240 dots, 8-color STN color LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 1M), communication unit interface, CE-compliant                                     |
|              | A956GOT-LBD-M3   | 320 x 240 dots, 2-color STN monochrome (black & white) LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 3M), communication unit interface, CE-compliant                |
|              | A956GOT-LBD      | 320 x 240 dots, 2-color STN monochrome (black & white) LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 1M), communication unit interface, CE-compliant                |
|              | A956GOT-LBD      | 320 x 240 dots, 2-color STN monochrome (black & white) LCD, medium-size electronic operation panel (built-in 24VDC power supply, internal memory 1M), communication unit interface, CE-compliant                |

<sup>\*1</sup>: For the latest information on regulation compliance (UL/CUL/CE), check them on the MELFANSweb home page at <http://www.nagoya.melco.co.jp/english/>

Software

| Product name                             | Model name         | Specifications   |
|--|--------------------|--|
| GT Designer Version5(English version)    | SW5D5C-GOTR-PACKE  | GOT900 series screen creation software   |
|  | SW5D5C-GOTR-PACKEV | Software for updating SW□D5C-GOTR-PACKE to SW5D5C-GOTR-PACKE   |
| GT Works Version5(English version)       | SW5D5C-GTWORKS-E   | GT SoftGOT functions <sup>*4</sup> + simulator functions + GOT900 series screen creation software  |
| GT Works-Plus Version5(English version)  | SW5D5C-GTWORKS-SE  | GT SoftGOT functions + GT SoftGOT license (license key for personal computer) + simulator functions + GOT900 series screen creation software |
| GT Designer Version5(Japanese version)   | SW5D5C-GOTR-PACK   | GOT900 series screen creation software   |
|  | SW5D5C-GOTR-PACKV  | Software for updating SW□D5C-GOTR-PACK to SW5D5C-GOTR-PACK   |
| GT Works Version5(Japanese version)      | SW5D5C-GTWORKS     | GT SoftGOT functions <sup>*4</sup> + simulator functions + GOT900 series screen creation software  |
|  | SW5D5C-GTWORKS-V   | Software for updating SW□D5C-GTWORKS to SW5D5C-GTWORKS   |
| GT Works-Plus Version5(Japanese version) | SW5D5C-GTWORKS-S   | GT SoftGOT functions + GT SoftGOT license (license key for personal computer) + simulator functions + GOT900 series screen creation software |
| GT SoftGOT license <sup>*2</sup>         | A9GTSOFT-LKEY-P    | License key for personal computer  |

<sup>\*2</sup>: To use the GT SoftGOT functions, the GT SoftGOT license is required for each personal computer.  
<sup>\*3</sup>: The GT SoftGOT functions are included in version D and later.



Graphic Operation Terminal

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series

List of products

Communication units

| Product name                | Model name     | Specifications  |
|-----------------------------|----------------|---|
| Bus connection board        | A9GT-QBUSS     | QCPU (Q mode) bus connection, for A985(-V)/975/970/960GOT, 1 connector  |
|                             | A9GT-QBUS2S    | QCPU (Q mode) bus connection, for A985(-V)/975/970/960GOT, 2 connectors   |
|                             | A9GT-50WQBUISS | QCPU (Q mode) bus connection, for A965WGOT, 1 connector   |
|                             | A9GT-BUSS      | QnA/ACPU bus connection, for A985(-V)/975/970/960GOT, 1 connector, CE-compliant   |
|                             | A9GT-BUS2S     | QnA/ACPU bus connection, for A985(-V)/975/970/960GOT, 2 connectors, CE-compliant  |
|                             | A9GT-50WBUISS  | QnA/ACPU bus connection, for A965WGOT, 1 connector  |
| Bus connection unit         | A9GT-QBUS2SU   | QCPU (Q mode) bus connection, for A985(-V)/975/970/960/956(W)GOT, 2 connectors  |
|                             | A9GT-BUSSU     | QnA/ACPU bus connection, for A985(-V)/975/970/960/956(W)GOT, 1 connector, CE-compliant  |
|                             | A9GT-BUS2SU    | QnA/ACPU bus connection, for A985(-V)/975/970/960/956(W)GOT, 2 connectors   |
| Serial communication board  | A9GT-RS4       | RS-422 connection (QnA/AFXCPU direct connection, computer link connection, microcomputer connection), for A985(-V)/975/970/960GOT, without clock function, CE-compliant |
|                             | A9GT-50WRS4    | RS-422 connection (QnA/AFXCPU direct connection, computer link connection, microcomputer connection), for A956WGOT, without clock function                              |
|                             | A9GT-RS2       | RS-232C connection (QCPU direct connection, computer link connection, microcomputer connection), for A985(-V)/A975/A970/A960GOT, without clock function, CE-compliant   |
|                             | A9GT-RS2T      | RS-232C connection (microcomputer connection), for A985(-V)/A975/A970/A960GOT, without built-in clock function  |
|                             | A9GT-50WRS2    | RS-232C connection (QCPU direct connection, computer link connection, microcomputer connection), for A956WGOT, without clock function                                   |
| Network connection unit     | A7GT-J71LP23   | MELSECNET/10 inter-PC optical loop  |
|                             | A7GT-J71BR13   | MELSECNET/10 inter-PC coaxial bus   |
| Data link connection unit   | A7GT-J71AP23   | MELSECNET(II) optical loop  |
|                             | A7GT-J71AR23   | MELSECNET(III) coaxial loop   |
|                             | A7GT-J71AT23B  | MELSECNET/B twisted pair bus  |
|                             | A8GT-J61BT13   | CC-Link (intelligent device station) twisted pair, CE-compliant   |
| CC-Link connection unit     | A8GT-J61BT15   | CC-Link (remote device station) twisted pair, CE-compliant  |
|                             | A9GT-J71E71-T  | For 10BaseT connection <span>New</span>   |
| Ethernet communication unit | A9GT-J71E71-T  | For 10BaseT connection <span>New</span>   |

\*1: For the cutting-edge information on overseas standard (UL/cUL/CE) compliance, check them on the MELFANSweb home page at <http://www.nagoya.melco.co.jp/>

Options

| Product name   | Model name    | Specifications   |
|--|---------------|--|
| Video/RGB mixed input interface unit                                 | A9GT-80V4R1   | Fitted to A985GOT-V, video display function: NTSC/PAL input system, 4CH <span>New</span><br>RGB display function: Analog RGB input system, 1CH                                     |
| Video input interface unit   | A9GT-80V4     | Fitted to A985GOT-V, NTSC/PAL input system, 4CH, required when using the video display function  |
| RGB input interface unit   | A9GT-80R1     | Fitted to A985GOT-V, analog RGB input system, 1CH, required when using the RGB display function  |
| Backlight  | A9GT-80LTT    | A985(-V)GOT, TFT color LCD HMI replacement backlight (1)   |
|  | A9GT-70LTT    | A975/970GOT-TBA (hardware version C or earlier) TFT color LCD HMI replacement backlight (1)<br>A975/970GOT-TBD (hardware version A)  |
|  | A9GT-70LTS    | A975/970GOT, STN color/monochrome LCD HMI replacement backlight (set of 2)   |
|  | A9GT-70LTTB   | A975/970GOT-TBA-B, A975/970GOT-TBD-B<br>A975/970GOT-TBA (hardware version D or later) TFT color LCD HMI replacement backlight (1)<br>A975/970GOT-TBD (hardware version B or later) |
|  | A9GT-50LT     | A95□GOT(-M3), STN color/monochrome LCD HMI replacement backlight (1)   |
|  | A9GT-FNB      | For optional function (A/FX ladder monitor compatible)   |
|  | A9GT-FNB1M    | For optional function (A/FX ladder monitor compatible) + expansion memory 1MB  |
| Expansion memory board<br>(For A985(-V)/975/970/960GOT(-B)/A956WGOT) | A9GT-FNB2M    | For optional function (A/FX ladder monitor compatible) + expansion memory 2MB  |
|  | A9GT-FNB4M    | For optional function (A/FX ladder monitor compatible) + expansion memory 4MB  |
|  | A9GT-FNB8M    | For optional function (A/FX ladder monitor compatible) + expansion memory 8MB  |
|  | A9GT-QFNB     | For optional function (Q/QnA/A/FX ladder monitor compatible)   |
|  | A9GT-QFNB4M   | For optional function (Q/QnA/A/FX ladder monitor compatible) + expansion memory 4MB  |
|  | A9GT-QFNB8M   | For optional function (Q/QnA/A/FX ladder monitor compatible) + expansion memory 8MB  |
| Protection sheet   | A9GT-80PSC    | Protection sheet (for A985GOT(-V), logo removable) Set of 5  |
|  | A9GT-70PSC    | Protection sheet (for A975/970GOT(-B), logo removable) Set of 5  |
|  | A9GT-60PSC    | Protection sheet (for A960, logo removable) Set of 5   |
|  | A9GT-50WPSC   | Protection sheet (for A956WGOT, logo removable) Set of 5   |
|  | A9GT-50PSC    | Protection sheet (for A95□GOT(-M3), logo removable) Set of 5   |
| Stand  | A9GT-80STAND  | Debugging stand for A985(-V)GOT  |
|  | A9GT-70STAND  | Debugging stand for A975/970/960GOT(-B)  |
|  | A9GT-50WSTAND | Debugging stand for A956WGOT   |
|  | A9GT-50STAND  | Debugging stand for A95□GOT(-M3)   |
|  | A9GTMEM-10MF  | Memory capacity 10M byte flash PC card (A985(-V)/A975/A970/A960GOT(-B) compatible), JEIDA Ver. 4.2 compliant (PCMCIA2.1 compliant)   |
| Flash PC card  | A9GTMEM-20MF  | Memory capacity 20M byte flash PC card (A985(-V)/A975/A970/A960GOT(-B) compatible), JEIDA Ver. 4.2 compliant (PCMCIA2.1 compliant)   |
|  | A9GTMEM-40MF  | Memory capacity 40M byte flash PC card (A985(-V)/A975/A970/A960GOT(-B) compatible), JEIDA Ver. 4.2 compliant (PCMCIA2.1 compliant)   |
|  | A1SD59J-MIF   | PC card interface unit for A95□GOT(-M3)/A956WGOT (flash PC card is unusable)   |
| External input/output interface unit                                 | A9GT-70KBF    | External input/output interface unit for A985/975/970/960GOT(-B) (proximity input/output: 8 DC inputs or keyboard: 64 DC inputs, 16 transistor outputs)                            |
|  | A8GT-50KBF    | External input/output interface unit for A95□GOT(-M3)/A956WGOT (proximity input/output: 8 DC inputs or keyboard: 64 DC inputs, 16 transistor outputs)                              |
| Printer interface unit   | A9GT-50PRF    | For parallel printer connection for A95□GOT(-M3)/A956WGOT, 1 channel   |
| Attachment   |               | Conventional models  |
|  | A87GT-97ATT   | A870GOT-TWS/SWS, A8GT-70GOT-TW/TB/SW/SB  |
|  | A87GT-96ATT   | A870GOT-EWS, A8GT-70GOT-EW/EB, A77GOT-EL-S5/EL-S3/EL   |
|  | A77GT-96ATT   | A770GOT-CL-S5/CL-S3/CL/L-S5/L-S3/L   |
|  | A85GT-95ATT   | A85□GOT(-M3)   |
|  |               | Replaceable models   |
|  |               | A97□GOT(-B)  |
|  |               | A960GOT  |
|  |               | A95□GOT(-M3)   |

\*1: For the cutting-edge information on overseas standard (UL/cUL/CE) compliance, check them on the MELFANSweb home page at <http://www.nagoya.melco.co.jp/>

Cables

| Product name   |   | Model name      | Cable length | 3rd party products <sup>1</sup> | Applications   |
|--|---|-----------------|--------------|---------------------------------|--|
| Q bus connection cable*2<br>(For QCPU (Q mode))                                      | Q expansion cable<br>Inter-GOT connection cable   | QC06B           | 0.6m         | -                               | For connection between QCPU and GOT<br>For connection between GOT and GOT  |
|  |   | QC12B           | 1.2m         |                                 |  |
|  |   | QC30B           | 3m           |                                 |  |
|  |   | QC50B           | 5m           |                                 |  |
|  |   | QC100B          | 10m          |                                 |  |
|  | Q long-distance connection cable<br>Inter-GOT long-distance connection cable              | A9GT-QC150BS    | 15m          | ○                               | For connection between A9GT-QCNB and GOT (long distance)<br>For connection between GOT and GOT (long distance)   |
|  |   | A9GT-QC200BS    | 20m          |                                 |  |
|  |   | A9GT-QC250BS    | 25m          |                                 |  |
|  |   | A9GT-QC300BS    | 30m          |                                 |  |
|  |   | A9GT-QC350BS    | 35m          |                                 |  |
| Bus extension connector box  | A9GT-QCNB   | -               | -            | -                               | *Used for QCPU long-distance bus connection  |
| A bus connection cable *2<br>(For QnA/ACPU/ motion controller (A series))            | Large CPU expansion cable   | A8GT-C12NB      | 1.2m         | ○                               | For connection between QnA/ACPU/motion controller (A series/expansion base) and GOT  |
|  |   | A8GT-C30NB      | 3m           |                                 |  |
|  |   | A8GT-C50NB      | 5m           |                                 |  |
|  |   | AC06B           | 0.6m         | -                               | For connection between QnA/ACPU/motion controller (A series/expansion base) and A7GT-CNB   |
|  |   | AC12B           | 1.2m         |                                 |  |
|  |   | AC30B           | 3m           |                                 |  |
|  |   | AC50B           | 5m           |                                 |  |
|  |   | AC12B-R         | 1.2m         | ○                               | For connection between QnA/ACPU/motion controller (A series/expansion base) and A7GT-CNB (one-end right angle connector)   |
|  |   | AC30B-R         | 3m           |                                 |  |
|  |   | AC50B-R         | 5m           |                                 |  |
|  |   | A370C12B-S1     | 1.2m         | -                               | For connection between motion controller (A series/main base) and GOT<br><br>For connection between motion controller (A series/main base) and A7GT-CNB  |
|  |   | A370C25B-S1     | 2.5m         |                                 |  |
|  |   | A370C12B        | 1.2m         |                                 |  |
|  | A370C25B  | 2.5m            |              |                                 |  |
|  | Small CPU expansion cable<br>Inter-GOT connection cable                                   | A1SC07B         | 0.7m         | -                               | For connection between QnAS/AnSCPU/motion controller (A series) and GOT<br>For connection between GOT and GOT  |
|  |   | A1SC12B         | 1.2m         |                                 |  |
|  |   | A1SC30B         | 3m           |                                 |  |
|  |   | A1SC50B         | 5m           |                                 |  |
|  |   | A1SC05NB        | 0.5m         |                                 |  |
|  | A1SC07NB  | 0.7m            |              |                                 |  |
|  | A1SC30NB  | 3m              |              |                                 |  |
|  | A1SC50NB  | 5m              |              |                                 |  |
|  | Small CPU long-distance connection cable  | A8GT-C100EXSS   | 10m          | ○                               | For connection between QnAS/AnSCPU/motion controller (A series) and GOT (long distance)<br>For connection between A7GT-CNB and GOT (long distance)<br>For connection between QnAS/AnSCPU/motion controller (A series) and GOT (long distance)<br>For connection between A7GT-CNB and GOT (long distance)<br>*Combination of A8GT-EXCNB and A8GT-C□BS |
|  |   | A8GT-C200EXSS   | 20m          |                                 |  |
|  |   | A8GT-C300EXSS   | 30m          |                                 |  |
|  |   | A8GT-C100EXSS-1 | 10m          |                                 |  |
|  |   | A8GT-C200EXSS-1 | 20m          |                                 |  |
| A8GT-C300EXSS-1  |   | 30m             |              |                                 |  |
| Small CPU long-distance connection cable<br>Inter-GOT long-distance connection cable |   | A8GT-C100BS     | 10m          |                                 |  |
|  | A8GT-C200BS   | 20m             |              |                                 |  |
|  | A8GT-C300BS   | 30m             |              |                                 |  |
| A0J2HCPU connection cable  | A9GT-J2C10B   | 1m              | -            | -                               | For connection between A0J2HCPU power supply unit (A0J2-PW) and GOT  |
| Bus connector conversion box   | A7GT-CNB  | -               | -            | -                               | *Used for QnA/ACPU long-distance bus connection  |
| Buffer circuit cable   | A8GT-EXCNB  | 0.5m            | -            | -                               | *Can be used with A8GT-C□BS as A8GT-C□EXSS-1.  |
| RS-422 cable   | FX/ACPU direct connection cable<br>Computer link connection cable<br>AJ65BT-G4 cable      | AC30R4-25P      | 3m           | ○                               | For connection between QnA/A/FX(FX1, FX2, FX2c)CPU and GOT, for connection between FA-CNV□CBL and GOT, for connection between FX-2PIF and GOT, for connection between FX-422AW0 and GOT, for connection between serial communication unit (AJ71QC24(N)-R4) and GOT, for connection between AJ65BT-G4-S3 and GOT                                      |
|  |   | AC100R4-25P     | 10m          |                                 |  |
|  |   | AC300R4-25P     | 30m          |                                 |  |
|  | FXCPU direct connection cable<br>FX function expansion board connection cable             | FX9GT-CAB0-150  | 1.5m         | -                               | For connection between FXCPU (FX0, FX0S, FX0N, FX1S, FX1N, FX2N, FX2NC) and GOT, for connection between FXCPU expansion board (FX1N-422-BD, FX2N-422-BD) and GOT   |
|  |   | FX9GT-CAB0      | 3m           |                                 |  |
|  |   | FX9GT-CAB-10M   | 10m          |                                 |  |
|  | RS232C/422 conversion cable<br>Cable adaptor<br>2PIF connection cable<br>Junction adaptor | FA-CNV2402CBL   | 0.2m         | -                               | For connection between QCPU and AC□R4-25P<br><br>For connection between FXCPU and AC□R4-25P<br>For connection between FXCPU and FX-2PIF<br>For junction connection (horizontal extension) between GOT (D-sub 25 pins: male) and RS422 cable (D-sub 25 pins: female)  |
|  |   | FA-CNV2405CBL   | 0.5m         |                                 |  |
|  |   | FX-422AW0       | 1.5m         |                                 |  |
|  |   | FX-422CAB0      | 1.5m         |                                 |  |
|  | AC006-25PEXT  | 6cm             | ○            |                                 |  |
| 2-port interface   | FX-2PIF   | -               | -            | -                               | *Used for FXCPU direct connection  |
| RS-232C cable  | QCPU direct connection cable<br>FX function expansion board connection cable              | QC30R2          | 3m           | -                               | For connection between QCPU and GOT  |
|  |   | AC30R2-9SS      | 3m           | ○                               | For connection between FXCPU expansion board (FX1N-232-BD) and GOT   |
|  | Data transfer cable   | FX-232CAB-1     | 3m           | -                               | For connection between personal computer (drawing software) (D-sub 9 pins: female) and GOT (D-sub 9 pins: female)  |
|  |   | AC30R2-9P       | 3m           | ○                               | For connection between personal computer (drawing software) (D-sub 25 pins: male) and GOT (D-sub 9 pins: female)   |
|  |   | F2-232CAB-1     | 3m           | -                               | For connection between personal computer (drawing software) (D-sub 25 pins: male) and GOT (D-sub 25 pins: male) *25 pin-9 pin converter is required)   |
|  |   | AC30R2          | 3m           | -                               | For connection between personal computer (drawing software) (D-sub 25 pins: male) and GOT (D-sub 25 pins: male *25 pin-9 pin converter is required)  |
|  |   | AC30N2A         | 3m           |                                 |  |
|  | Junction adaptor  | AC006-9PEXT     | 6cm          | ○                               | For junction connection (horizontal extension) between GOT (D-sub 9 pins: female) and RS232C cable (D-sub 9 pins: male)  |
|  | Printer cable   | AC30PIO-20P     | 3m           | -                               | -  |
| PC card interface unit connection cable  | A85GT-C05H  | 0.5m            | -            | -                               | For connection between GOT and PC card interface unit (A1SD59J-MIF)  |

\*1: Purchase the 3rd party products from Mitsubishi Electric System Service. Contact your local sales office for details.

\*2: Confirm the connector dimensions/shapes of the bus connection cables on page 52 "Bus connection cables, etc..".

Related manuals

| Manual title   | Overview   |
|--|--|
| A985GOT/A975GOT/A970GOT/A960GOTUsers Manual (Details)  | Specifications, system configuration, components, names of parts, optional unit installation procedure, installation/cabling procedure, maintenance/inspection procedure, and error codes  |
| A950GOT/A951GOT/A953GOT/A956GOTUsers Manual (Details)  | Specifications, system configuration, components, names of parts, optional unit installation procedure, installation/cabling procedure, maintenance/inspection procedure, and error codes  |
| GT Works Version5/GT Designer Version5Reference Manual   | GT Designer drawing software screen makeup, help function using procedure, and object functions that can be performed on GOT900 series   |
| GOT-A900 Series Users Manual<br>(GT Works Version 5/GT Designer Version 5: Connection)                               | GOT-A900 series connection configuration specification, system configuration, setting, and connection diagrams   |
| GOT-A900 Series Operating Manual(GT Works Version 5<br>/GT Designer Version 5:Extended Functions/Optional Functions) | GOT-A900 series utility function, system monitor function, ladder monitor function, special function unit monitor function, network monitor function, list edition function specifications, and dedicated monitor screen operation procedure |
| GT Simulator Version5 Operating Manual   | GT Simulator screen makeup and using procedure   |
| GT SoftGOT Version5 Operating Manual   | GT SoftGOT screen makeup and using procedure   |

\*1: Each product is supplied with a manual as well as the above manuals. If you wish to purchase a manual, please contact your local Mitsubishi representative.



# Mitsubishi Graphic Operation Terminal

## Precautions for Choosing the Products

This catalog explains the typical features and functions of the GOT900 series and does not provide restrictions and other information on usage and module combinations. When using the products, always read the user's manuals of the products.

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## For safe use

- To use the products given in this catalog properly, always read the "manuals" before starting to use them.
- This product has been manufactured as a general-purpose part for general industries, and has not been designed or manufactured to be incorporated in a device or system used in purposes related to human life.
- Before using the product for special purposes such as nuclear power, electric power, aerospace, medicine or passenger movement vehicles, consult with Mitsubishi.
- This product has been manufactured under strict quality control. However, when installing the product where major accidents or losses could occur if the product fails, install appropriate backup or failsafe functions in the system.

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